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The volume is well worth
to every parent.

ON
DISEASES MOST INCIDENT
TO
CHILDREN,
&c.

No 99

AN
ACCOUNT OF THE DISEASES
MOST INCIDENT TO
CHILDREN.

To which is added,
AN ESSAY ON NURSING,
WITH
A PARTICULAR VIEW
TO INFANTS BROUGHT UP BY HAND.

ALSO,
A SHORT ACCOUNT OF THE DISPENSARY
FOR
THE INFANT POOR.

BY THE LATE
GEORGE ARMSTRONG, M. D.

A NEW EDITION, WITH MANY ADDITIONAL NOTES,
BY A. P. BUCHAN, M. D.
OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

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TO THE QUEEN.

MADAM;

IT would be doing the greatest injustice to your Majesty's humanity and benevolence, to suppose that the welfare of the Infant-race can be indifferent to your Majesty. A full assurance of the contrary has induced me to solicit the honour of your Royal patronage to the following Work, of which the chief intention is to alleviate the distresses incident to children, from the various diseases to which they are exposed. This is a field that stands greatly in need of cultivation; and your Majesty's gracious countenance to an attempt of this kind, cannot fail to

DEDICATION.

have a happy effect in inciting others to make further improvements on it.

That your Majesty may long continue the happy mother of a numerous, healthy, and beautiful Offspring, is the most fervent wish of,

MADAM,

Your MAJESTY'S

Most faithful and

Most obedient servant,

GEO. ARMSTRONG.

PREFACE.

UPWARDS of three years ago, the former edition of this book having been sold off, I was advised by my Bookseller to publish another edition, as he said that the book was frequently called for. I accordingly set about it; but on reading it attentively over, I presently discovered, that some parts of the account of some particular complaints, especially in the beginning of the book, lay too much detached from each other, and therefore ought to be more properly arranged, which would make it more uniform, and more agreeable to the

reader, though it would cost me a good deal of trouble to accomplish it. Indeed, I found it to be a much more troublesome task than at first I imagined, especially as at that time I had not many spare hours in the day to bestow upon it. However, I lost no time in trying to execute this arrangement, and had made a considerable progress in it, when, unfortunately, I was seized with a paralytic complaint, which for a good while at first put an entire stop to it, and for some time put it out of my thoughts to resume it. As soon as my health and strength would allow, I returned to my task; but continuing still weak, it went slowly on, and I found it a tiresome affair to finish.

Besides this tedious alteration, there are several additions, which being the result of experience, and found to be useful, were

not to be omitted. Amongst others, there are three cases of the *Hydrocephalus Internus* successfully treated, according to the method of Dr. Dobson, physician at Bath; viz. one by Dr. Dobson himself; one by Dr. John Hunter, Physician to the Army; and one which came under my own inspection, in the course of the Dispensary business. I must own that this disease has often shocked and mortified me; for though I have met with it repeatedly, and tried every thing I could think of to abate or remove it, as well as every method I saw or heard of recommended by the most eminent physicians, yet all was to no purpose, till I met with the Case published by Dr. Dobson, in the Medical and Philosophical Commentaries of Edinburgh, which I have faithfully transcribed, and make no doubt but that and the other two Cases, being strongly marked, and successfully treated, will in-

PREFACE.

duce other practitioners to adopt the same method, and not be discouraged from pursuing it, though it should sometimes fail. For, considering the exquisite tenderness of the organ affected; especially in very young subjects, and the uncertainty of curing the dropsy in any of the internal *viscera*, one could hardly expect any method to succeed; and hence it has been reckoned, by some of the most eminent of the Faculty, a very desperate disease. The method being new to me, and recommended from experience by a physician of character and veracity, I was much pleased with it, and determined to try it the first fair opportunity. Soon after that, my friend Dr. John Hunter showed me another case of the same complaint, successfully treated after the same method, which I begged a copy of, and have inserted in its proper place; and not long after this the

Third Case occurred, which I have given as distinct an account of as circumstances would allow. But the child being nursed in the country, and only brought to town occasionally, for a fresh supply of medicines, the account is not so circumstantial and accurate as I could have wished. However, I am persuaded, that from the account as it now stands, no physical person, who is acquainted with the *Hydrocephalus Internus*, will make any doubt that the case there stated belongs to that class; and as there was no other medicine exhibited besides the calomel, it affords a very strong instance of the efficacy of that remedy in that particular complaint.

I have added a Short General Account of the Dispensary for the Infant Poor, to give an opportunity of introducing several complaints incident to children, which were

not treated of in the body of the work; and likewise to show the great usefulness of that charity, which, from want of health, I was obliged to give up; but by proper management may be revived in other hands, and still rendered worthy of the protection and patronage of the Public.

I have adduced but few cases at large in the course of the work, and most of these are where the bodies were opened after death, in order to elucidate some particular symptoms. But to make some amends, I have been as careful and correct as I possibly could, in describing the several complaints treated of, and in adjusting the doses of the medicines to the age and strength of the little patients. Neither have I recommended any medicine, or method of cure, which I have not found repeatedly successful.

The acute fevers of children I have left almost untouched. First, because of their analogy with those in grown persons, which have been repeatedly treated of by some of the most eminent physicians; and secondly, because any observations, which I have hitherto been able to make on these complaints, that might be worth communicating, are not yet sufficiently confirmed by experience, so as to render the publishing of them either satisfactory to myself, or fairly to be recommended to the Public.

INTRODUCTION,

BY THE EDITOR.

WITHIN the memory of many persons still alive, an opinion prevailed, that the shape of a child's body and the symmetry of its limbs depended wholly on the care and attention of the nurse. Those who recollect the complicated bandages and fillets, together with the formidable host of pins, which at that period were employed to compress the tender limbs of infants, with the laudable intent of improving the work of Nature, must admit, that, by the present mode of management, the more early stage of the existence of children has

been spared much misery, and their attendants much trouble and anxiety. Previous to that period, little attention comparatively was paid by practitioners of medicine to the diseases of children. They were supposed to be difficult to understand, and to belong rather to the province of the nurse or the midwife, than to that of the physician. But during the latter period of the last century many popular works have appeared in various parts of Europe concerning the diseases and treatment of children; and the general improvement that has taken place in the management of the more early years of human existence, may fairly be attributed to their influence on the public mind.

The almost total disappearance of the rickets, and the very striking diminution of the scrophula, or evil, may be adduced

as strong proofs of this improved treatment of the more early period of human life. From Dr. *W. Heberden's* comparative view of the mortality occasioned by certain diseases at the beginning, the middle, and the close of the eighteenth century, we learn that on an average of ten years the deaths from these complaints, which are almost peculiar to childhood, took place in the following ratio :

	<i>Beginning.</i>	<i>Middle.</i>	<i>End.</i>
Rickets	380	11	1.
Evil	70	18	8.

The former of these complaints has been ascribed by every attentive observer to improper diet, defective exercise, and want of due exposure to the open air; and the extinction of it can only be attributed to

more attention being paid to these circumstances.

Whether that peculiar delicacy of bodily structure, with which scrophulous affections are generally found to be conjoined, is most effectually corrected by means of exercise, exposure to the open air, cold-bathing, and other means of invigorating the constitution; or whether it be rather the duty of parents, by warm clothing and confinement to heated rooms, to protect their more delicate offspring from the inclemency of a climate too cold for their constitution, is a matter concerning which people differ in opinion.

The majority of authors who have written concerning the education and treatment of children, among the most popular

of whom may be reckoned Lock in this country, and Rousseau on the Continent, have inculcated the utility of accustoming children to be much in the open air, to take regular exercise, and to be early inured to the cold bath*. In proportion as these principles of education have been adopted, which have been gradually gaining ground during the course of the last century, scrophula appears then to have decreased in frequency. While it still continues to prevail among children confined to sedentary occupations, and particularly among the

* I trust I may be excused for adding, that in my opinion, the directions for the treatment of children, contained in the "DOMESTIC MEDICINE," which has now been a popular book for more than forty years, and which the Author derived from extensive experience as Physician to the Foundling Hospital at Ackworth, has had no inconsiderable influence in the general improvement of the management of infancy.

offspring of that class of the poor, whose indigence arises from want of industry, and who are even too idle to keep their children clean, or to give them proper exercise. In some individual instances, I think I have clearly seen the more early indications of a tendency to scrophula completely counteracted by a transition from a sedentary to a very active mode of life.

By these considerations my mind is influenced in favour of what has been termed (metaphorically indeed as applied to the living body) the hardening plan of education. Plants being possessed of a living principle as well as animals, there is no incongruity in adducing a circumstance taking place in their physiology in support of the present opinion. By some interesting experiments, Sir Joseph Banks has recently ascertained, that by repeatedly re-

sowing the seeds of plants indigenous to warm climates in colder countries, their offspring gradually acquire habits of hardihood, and learn by degrees to endure and even to flourish in a temperature, the rigour of which they could with difficulty at first sustain. Is not this analogy sufficient to induce us at least to try a similar experiment on the living body? If by a cautiously conducted exposure to the open air, combined with regular exercise, moderate clothing, and the use of the temperate bath, we should enable the offspring of delicate persons to sustain the rigours of a northern winter, and thus even in a succession of generations to wear out the disposition to scrophula, it would be a triumph to the art of medicine, for by the adoption of appropriate means we might then hope also to be able to destroy the propensity to other hereditary diseases. Even by the death of the

Thurston individuals who might perish in the experiment, the chance of propagating a diseased offspring would be considerably diminished.

The most prevalent error respecting the treatment of children originates in the wish of parents to produce an early developement of the intellectual faculties. Too much attention cannot indeed be bestowed on the improvement of the mind; but the instinctive propensity to bodily activity observable in healthy children, as well as in the young of all other animals, affords a sufficient proof that Nature intended that the exercise of the corporeal powers should precede that of the intellectual. The brain is as much the organ of thought as the muscles are the instruments of voluntary motion. But during the early years of life the texture of the brain is comparatively soft, and equally liable to be injured by too great exertion, as the limbs

measured of every day

of a child would be by attempting to sustain the fatigues of a man. To this precocious employment of the mental faculties may perhaps be attributed, among other causes, the great increase of nervous complaints, the proportion of which has doubled in the course of the last century. But the most immediate and serious result of too intense application of mind is Hydrocephalus. Though the termination of this complaint be an effusion of aqueous fluid into the ventricles of the brain, its more immediate cause is an inflammation of the membrane lining these cavities, which again may be referred to the augmented flow of blood towards the head which accompanies great mental exertion. Children endowed with the most acute capacities, and who of course are in the habit of exercising intensely the faculties of attention and memory, are peculiarly liable to become the victims of this

*Long opinioned to be very likely
as it is a very common observation that
Hydrocephalus is more common in children
than in adults.*

fatal malady. Particular care is therefore required to moderate rather than to excite their intellectual exertions.

This purpose is not to be effected merely by restraining them from too close application to study, but rather by giving a proper direction to those active exertions to which healthy children are by nature sufficiently prone. Bodily activity when restrained degenerates into restlessness, which constitutes a great part of the misery of a school. Whereas, after a due share of bodily fatigue, rest, with a certain share of mental occupation, becomes an agreeable alternative. Nor are the moral effects of exhausting the superabundant vitality of youth, of less importance than the physical. But it is not my purpose here to treat of the physical education of youth. By what means the development of the active bodily powers may

not only be enabled to keep pace with, but even be rendered subservient to, the improvement of the mental faculties, has already been well explained, in a work which has not hitherto obtained that popularity in this country, which in my opinion it justly merits*.

Sufficient exercise in the open air, accompanied with the temperate bath, by keeping the skin in a healthy and perspirable state, tends also to obviate those visceral accumulations and obstructions with which children who lead sedentary lives are so commonly afflicted. The habitual

* GYMNASTICS FOR YOUTH, from the German of *Salzman*, published by Johnson. Every schoolmaster ought to be acquainted with this book. An abridgement of it, accompanied with figures, would be a valuable addition to the juvenile library.

necessity for the use of purgatives, would by this means also be superseded, which however necessary they may be to cleanse the loaded bowels of children, tend eventually to impair the organs of digestion. It is to be regretted that the gratification of the palate is often made the chief incentive to proper conduct during the more early years of life. A habitual craving for food is thus frequently implanted, which is in more mature years with difficulty subdued : and an indulgence even in fermented liquors and stimulating aliment too often at an early period injures the constitution, and renders it unable to struggle with those diseases which infancy can hardly be expected wholly to escape. To this early stimulating diet is to be attributed that flush of apparent health, which it frequently surprises a stranger to behold in the cheeks of children in the metropolis, but which is

as far from betokening a real sanity of constitution, as the rosy hue of the habitual inebriate; and both are equally unfit to contend with a serious attack of disease. The unsophisticated palate of infancy is at least equally gratified with the taste of ripe fruit, in which they may always be indulged with impunity.

It is a common opinion, that the complaints of children are peculiarly difficult to treat on account of the little patients being unable to describe their sensations. But persons actually occupied in the practice of medicine must be aware that it is often no less difficult to sift the truth out of the figurative and theoretical language in which adults are apt to clothe their feelings, than it is to judge of the unadulterated expressions of distress, exhibited by an infant suffering from disease. Much

also is to be learned from strict attention to the state of the various secretions, the examination of which should never be omitted. The greatest obstacle to the proper treatment of the diseases of children consists in their repugnance to take any thing in the shape of medicine. An aversion to drugs is probably implanted by Nature, in order to obviate the risk of taking into the stomach vegetable poisons, which have in general an unpleasant taste. But this instinctive aversion is often augmented by the inconsiderate practice of some parents in holding out the threat of the necessity of taking medicine as a punishment for improper behaviour. But when the life of a favourite child is in danger, and there is an absolute necessity for taking some medicine, when entreaties and caresses are of no avail, and the sole resource is force, parents regret their imprudence when it is too late.

During health, it would certainly be highly improper to oblige children to swallow drugs; but all this distress might be obviated by accustoming a child occasionally to eat or drink something not quite agreeable to the palate in obedience to the peremptory command of a parent.

It is moreover to be observed, that in proportion as the constitutions of children have not been impaired by the habitual use of stimulating aliment, they are the more susceptible of the operation of medicines. Nor during sickness are their minds agitated by those anxieties respecting the present, or fears about the future, by which the maladies of those of more mature years are frequently aggravated. In the earlier years of life there is present also, not only a redundancy; but, if the expression may be permitted, a certain tenacity of the

vital principle, which enables them, notwithstanding the apparent delicacy of their organization, to sustain and survive a degree of diseased action, which in an adult would probably prove fatal. The recovery of children from acute diseases should therefore never be despaired of, nor the employment of any rational means of relief be omitted while life remains.

That the present work has been found an useful medical guide in the most prevalent diseases of childhood, is proved by the demand for repeated editions, of which the third has been for some time out of print. It is hoped that the notes added to the present edition, which are chiefly of a practical nature, will not render it less worthy of public approbation. No addition has been made to the number of the diseases originally treated of by the

author. From the formidable catalogue of complaints exhibited in some publications on the diseases of children, it might be inferred, that the infancy of human beings was destined to be a state of disease, from which it was hardly possible that an individual could escape. Such an opinion forms an excuse for the negligence of those to whom the care of children is committed, as well as an apology for calling in medical assistance on every trivial indisposition. On the contrary, the truth is, that childhood is naturally the most healthy period of life; and, with the exception of epidemic and contagious maladies, the diseases of children may in general be imputed to the negligent or erroneous conduct of those who have the care of them.

Percy Street,
April, 1808.

A. P. BUCHAN.

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AN
ACCOUNT
OF THE
DISEASES MOST INCIDENT
TO
CHILDREN.

CHAP. I.

Of the Diseases most incident to Infants in General.

IF we take a survey of the different provinces of medicine, we shall readily discover, that one which happens to be of the greatest consequence to society, as the population of every country in a great measure depends upon it; I mean that which regards the diseases of infants, has hitherto lain uncultivated, or at least been much

neglected. I do not pretend to account for this strange neglect, nor is it to my purpose: but certain it is, that though the human species can only be preserved by taking proper care of the infant race, which is much more helpless than the young of other animals; and though a much greater number of our species in proportion to the whole, than of any other that we know, dies very young; yet the care of infants, even with regard to medicine, has commonly been left to old women, nurses, and midwives, so that it has long been a common saying in this country, that the best doctor for a child is an old woman.

This I do not mention by way of reflexion on the authors who have written upon this subject, some of whom are very eminent, such as Harris, Astruc, Brouzet, Boërhaave, Van Swieten, and Hoffman, not forgetting the great Sydenham, in many parts of his works; but that I may invite others to endeavour after further improvements in a field which still stands in need of

cultivation. As a proof that this subject has not hitherto been exhausted, the most common complaint incident to infants, as will appear afterwards, *viz. inward fits*, is not once mentioned in any of the above-named authors, nor in any other that I have perused.

There is likewise another disease, which will be treated of in the course of this work, that has not been taken notice of by any of the above authors, though it is more frequent, and more pernicious to the infant race, than almost all the other diseases put together; I mean the hectic fever, described in the article of teething.

I know there are some of the physical tribe who are not fond of practising among infants; and I have heard an eminent physician say, that he never wished to be called in to a young child; because he was really at a loss to know what to order for it. Nay, I am told, there are physicians of note here, who make no scruple to assert, that there is

nothing to be done for children when they are ill*.

The most plausible excuse for declining to practise amongst infants is, that they are not capable of telling their ailments; therefore, say some, it is working in the dark; and while you endeavour to relieve them, perhaps you may do them a mischief, instead of any service. But let me ask, when a person is delirious in a fever, for instance, how is the physician to come at the knowledge of his case? The man can no more answer properly any question that is put to him, than if he ~~was~~ ^{more} an infant; nay, perhaps, in his raving he shall mislead you, by mentioning complaints which he really has not; and yet no physician ever thought of giving up his patient merely on that account. In the apoplexy, when the patient is struck senseless and speechless all at

* This, I am told, was the doctrine of the late Dr. Hunter, who, though a great anatomist, was no adept in physic.

once, and so remains till by proper means his senses and speech are restored, he can give no information about his illness; and if the physician were to wait for the recovery of his speech before he attempted to give him relief, he would probably lose him; or, in case the patient should recover, he would have no great reason to thank his physician. Many other instances might be adduced, where the patient can give no satisfactory account of his complaints.

But though infants are not capable of expressing their complaints by words, the very symptoms themselves will, for the most part, speak for them, in so plain a manner as to be easily understood. Thus, for example, if an infant is seized with a violent vomiting and purging, to which they are very subject, is not the complaint as evident in them as in grown persons? Or if there is no purging, but on the contrary a costive disposition, do not even the nurses about them know, by the tension and heat

of the stomach and bowels, the violent screaming, and drawing up the feet to the hips, that they have got the dry belly-ache, as it is called; or, in other words, an obstruction of the bowels? If a child happens to have a fever, the increased heat of the body, the fulness and quickness of the pulse, together with the whiteness of the tongue, restlessness, &c., are sufficient indications of the disorder it labours under.

These circumstances I mention, chiefly to convince those parents and others, who, from a false notion that there is little or nothing to be done for infants when they are ill, defer calling in proper assistance till it is too late.

I am frequently mortified at being applied to in cases which might easily have been cured, if they had been taken in time, but are become desperate merely from neglect, chiefly owing to the above-mentioned erroneous opinion. But there is still another reason why children are sometimes neglected,

which I am sorry to mention, but of its truth I am convinced from experience. It is this: children, while in their infancy, especially if the young family is numerous, and the parents in straitened circumstances, are not thought of sufficient consequence to be much attended to, unless some sudden or violent illness happens to give an alarm. This secret has sometimes come out in my hearing, even by persons who were not reckoned poor; I believe, however, such cases very seldom occur in this part of the world. But to return:

If infants are to be deprived of the benefit of medicine, because they are not capable of expressing their complaints by words, they will rarely have the advantage of it till they are five or six years old. For, if you ask a boy of three or four, what is the matter with him; he will very likely either give you no answer at all, or one that you can make nothing out of. If you ask, whether his head aches; perhaps he will say, Yes. If he has a pain

in the stomach, Yes. And if you ask him twenty such questions, he will probably answer in the affirmative; while, perhaps, he has no pain any where. It may possibly be sickness that he takes for pain, not yet knowing the proper distinction between these two words. In order, therefore, to be rightly informed what his real complaints are, you must apply to the parents, or nurse, for intelligence. Another, who perhaps is afraid of taking physic, will answer, No, to every question that is put to him. And a third will say, I don't know; if you should ask him fifty questions. In all these cases, you can get no more information from the patient, than if he ~~was~~ a mere speechless infant; and if you have no other resource, you must still remain in the dark. But we must not suffer our helpless offspring to languish and die, because they cannot, or perhaps will not, tell us their ailments. On the contrary, we ought to be the more assiduous to discover their diseases, with the causes of them, in order to procure them speedy relief; as their tender bodies can-

not, like those of adults, bear violent and repeated shocks.

But, if we will only give ourselves the trouble of examining this subject attentively, we shall soon be convinced, that though a great part of the human species dies in infancy or childhood; and though many of them are cut off by diseases peculiar to infancy, such, for example, as arise from teething; yet their disorders are not so numerous, nor so hard to be accounted for, as one unacquainted with the subject would at first sight imagine.

In the first place, as to their number. They are not subject to that multitude either of acute or chronical distempers, which many grown persons bring upon themselves by intemperance, and others have unfortunately brought upon them by hard labour, violent exercise, and the inclemency of the weather; being exposed to heats, colds, damps, &c. They do not suffer from care, or misfortunes in life,

which kill many thousands; by bringing on fevers, low spirits, and all sorts of nervous disorders. Few of the hereditary diseases appear in infancy, or even in childhood; such as, the gout, the consumption, the palsy. Thus we see their diseases are much fewer in number than those of adults; for, excepting what the nurses call inward fits, teething, and the rickets, I do not recollect any particular disorder that infants and children are subject to, which adults are exempted from. For as to convulsions, the thrush, and the watery gripes, which kill such a number of infants, adults are subject to them as well as they (though I must own not so much), the watery gripes being only another name for a violent *diarrhæa*.

Their distempers are not only much fewer in number, than those of grown persons; but I hope, from what follows, it will evidently appear, that they are more easily accounted for, than perhaps is generally imagined; almost all of them arising from

one common cause; and, if treated in a proper manner, are more easily cured.

It is known from anatomy, that the glands in general, and consequently the glandular secretions, are much larger, in proportion, in children, than in adults. The glands of the mouth, *fauces*, gullet, stomach, and intestines, but above all the liver and *pancreas*, are constantly pouring out their slimy contents (for the bile appears more slimy in infants than in grown persons*), which, unless properly evacuated,

* In a child, which I opened a few years ago, that died, at the age of ten months, of obstructions in its bowels which occasioned want of digestion, and, in consequence thereof, a marasmus; the gall in the *vesica fellea* was as thick and ropy as a strong mucilage of quince seeds, and of a deep saffron colour. The child was never thriving from the birth, had been ill a month before I saw him, and was very much reduced. He had a slow fever almost constantly upon him; and his complexion was very sallow, like a person's in the beginning of the jaundice. His urine was high coloured, his stools whitish, very tenacious, and offensive to the smell;

load their tender bowels, and occasion most of the complaints to which infancy is subject. For as they cannot of themselves use exercise for promoting digestion, and as their nurses too often neglect to give it them, and to rub them, the contents of their stomach and bowels must stagnate; and, either by their viscidty, or acrimony, or both, produce various complaints, and often death itself. And here I cannot help observing, that this very want of exercise may be one great reason, why a much greater number of our species die in their infancy, than of the young of other animals, even reckoning for the first two or three months only. Some of them, such as puppies, kit-

and he was generally inclined to be costive, except when laxatives were given him. When opened, the abdominal viscera appeared all very sound, nor could any thing be discovered to account for his complaints, except the above viscid quality of the bile in the gall-bladder, which had tinged the neighbouring parts of a deep orange colour. The father of this child was a native of the West Indies, and subject to bilious complaints.

tens, and rabbits, soon begin to crawl about, and the mothers encourage them to it by playing with them : colts, calves, and lambs, are forced to use their limbs very soon after the birth, being obliged to follow their dams for nourishment. But to return to infants.

CHAP. II.

Of inward Fits.

INWARD fits, as they are called, are, in general, the first complaint that appears in children; and, as far as I have observed, most, if not all, infants, during the first months, are more or less liable to them. The symptoms are these: The child appears as if it was asleep, only the eyelids are not quite closed; and if you observe them narrowly, you shall see the eyes frequently twinkle, with the white of them turned up. There is a kind of tremulous motion in the muscles of the face and lips, which produces something like a simper or a smile, and sometimes almost the appearance of a laugh. As the disorder increases, the infant's breath seems now and then to stop for a little; the nose becomes pinched, there is a pale circle about the eyes and mouth, which sometimes changes to livid, and comes and goes

+ were

5015. L

This child is a dwarf, who has never had
a good night in his life.

by turns; the child starts, especially if you go to stir it, though never so gently, or if you make any noise near it. Thus disturbed, it sighs, or breaks wind, which gives relief for a little, but presently it relapses into the dozing. Sometimes it struggles hard before it can break wind, and seems as if falling into convulsions; but a violent burst of wind from the stomach, or vomiting, or a loud fit of crying, sets all to rights again. As the child increases in strength, these fits are the more apt to go off spontaneously, and by degrees; but in case they do not, and if there is nothing done to remove them, they either degenerate into an almost constant drowsiness (which is succeeded by a fever and the thrush), or else they terminate in vomitings, sour, curdled, or green stools, the watery gripes, and convulsions. The thrush, indeed, very often terminates in these last symptoms. Wherefore, as these complaints naturally run into one another, or succeed each other, they may be considered, in a manner, as only different stages of the same disease, and

+ 'at 5 m. or so I think) —

Yes, your thought, I repeat, your words
- but, please - be assured you are

which derive their origin from the same cause. Thus, the inward fits may be looked upon as the first stage of the disorder; the fever, and thrush (when it happens), as the second; the vomitings, sour, curdled, green, or watery stools, as the third; and convulsions, as the last.

As to the cause of these complaints, I observed before, that in infants the glandular secretions, which are all more or less glutinous, are much more copious than in adults. During the time of sucking, the glands of the mouth and *fauces*, being squeezed by the contraction of the muscles, spew out their contents plentifully, which afterwards mixing with the mucus of the gullet and stomach, render the milk of a slimy consistence, by which means it is not so readily absorbed into the lacteals; and as in most infants there is too great an acidity in the stomach, the milk is thereby curdled, which adds to the load: hence sickness and spasms; which, being communicated by sympathy to the nerves of the gullet and

Fauces, produce the convulsive motions above described, which go commonly by the name of inward fits. The air, likewise, which is drawn in during suction, mixing with the milk, &c. in the stomach, perhaps contributes towards increasing the spasms above mentioned. I am the more induced to attribute these fits to the causes now assigned, that they always appear immediately after sucking, or feeding, especially if the child has been long at the breast, or fed heartily, and has been laid down to sleep without having first broken wind, which ought never to be done. Another reason which makes me attribute these fits to the above cause, is that nothing relieves them so soon as belching, or vomiting; and the milk or food they throw up, is generally either curdled, or mixed with a large quantity of heavy phlegm. In case they are not relieved by belching or vomiting, the fits sometimes continue a good while, and gradually abate, according as the contents of the stomach are pushed into the intestines; and as soon as the former is

pretty well emptied, the child is waked by hunger, cries, and wants the breast; he sucks, and the same process is repeated. Thus, some children for the first weeks are kept almost always in a doze, or seemingly so; especially if the nurses, either through laziness or want of skill, do not take care to rouse them, when they perceive that it is not a right sleep, and keep them awake at proper intervals. This dozing is reckoned a bad sign amongst experienced nurses, who look upon it as a forerunner of the thrush, as indeed it often is; and therefore, when it happens, we ought to be upon our guard to use the necessary precautions, to be mentioned hereafter, for preventing that disorder*.

I said before, that, as far as I had ob-

* If inward fits are to be considered as a disease, which by many good practitioners is doubted, it is generally to be attributed to over-distention of the stomach. This may readily be relieved by any gentle purgative, but it is much better prevented by proper attention to the regulation of the child's diet. *Ed.*

served, most, if not all, infants, are more or less subject to them from their birth, and this disposition continues till they come to be about three months old. As they are common to most children at this early period of life, and of themselves are not mortal, parents and nurses are not much alarmed at them; but yet it is necessary to be attentive to them: because if they are not kept under, they become a certain prelude to something worse, which, by removing them in time, might of course be prevented, and thereby the lives of many infants saved. The best method to prevent their increasing, is never to lay the child down after it has sucked, or been fed, till it has broken wind upwards or downwards two or three times; the oftener the better. For this purpose, instead of laying it down on the bed, or cradle, let the nurse hold it sloping in her arms, dandle it, pat its back, and rub the palms of its hands pretty smartly, which, generally speaking, will have the desired effect. But if these means should not succeed, I would recommend a gentle

puke, to be repeated from time to time as occasion requires. I am fully convinced, from the practice which I have had amongst children, that if such a puke were given to infants soon after they are born, instead of a purge, and repeated occasionally, it would be of much more service, and fatigue them a great deal less. Nay, if they are apt to be sick, which very often happens, and is easily known by their frequent vomiting or retching, or change of colour, turning commonly pale or wan when the stomach is sick, I am very certain that a puke is the quickest and most effectual remedy. A few drops of the antimonial wine, *viz.* from five to ten, will generally be sufficient for a young infant; and that medicine has this advantage, that it commonly operates both ways, and by that means thoroughly cleanses the bowels. If it operates once, or twice at most, it is sufficient; and, instead of straining them much at a time, it is better to repeat the puke again soon, if necessary. I have given five drops to children a few days after their birth, without finding it too

strong for them, and I seldom give a larger dose till they are about a month old, repeating it in the space of an hour, in case the first has not operated. After the first month, you may give six, seven, or eight drops, according to the child's strength, or the urgency of the case, and at three or four months old, from nine, to eleven or twelve. But I always begin with a small dose; for children differ full as much in that respect as grown persons, some of them being much easier vomited than others. Besides, twenty drops will very often vomit a child of three or four years old, that has not been accustomed to this medicine: but if there is occasion to repeat it soon afterwards, the quantity must be increased.

Though this has the character of being a rough medicine, which perhaps may make some afraid to give it to those tender patients, I can assure them I have given it to a great many children at different ages, some of them, as has just been observed,

very young, and to the same children at different times; yet I never once knew it to have any bad effect, but much the contrary.

But there is one rule which ought constantly to be observed in administering vomits to infants, as well as adults; that is, never to give them when the patient is costive, without first opening the body by means of a gentle purge, or clyster. The not attending to this precaution, has brought an imputation upon emetics, when the fault only lay in neglecting this rule.

Next to the above method, there is nothing that contributes more to make infants, during the first months, thriving and healthy, than preserving them from catching cold, by keeping them in a proper warmth, as dry as possible, and rubbing their limbs and belly frequently, with a warm hand, before the fire. A person unused to the management of children,

would be surprised to see how soon they delight in this exercise, and how strongly they express the comfort it gives them.

In case the above directions are observed, that is to say, provided the child be never laid down to sleep, after it has been suckled or fed, till it breaks wind upwards or downwards two or three times; and that cannot be procured by the easy means just now directed, a gentle puke be given, of the antimonial wine, above recommended; if it is preserved from catching cold, kept as dry as possible, and the limbs and belly rubbed frequently, and for a good while together, with a warm hand before the fire; if it has been born to the full time, of healthy parents, is not remarkably weakly, nor subject to rashes, and is suckled by a healthy nurse, careful of her diet; or if the child is brought up by the hand with proper nourishment; we need not be much afraid either of the thrush, green stools, watery gripes, or even of convulsions, except the idiopathic, till the time of teething.

CHAP. III.

Of the Thrush.

THE thrush in infants generally appears first upon the tongue, and the back part of the roof of the mouth, in the form of small white specks or sloughs, very much resembling broken curd, which, increasing in size and number, run together, and compose a superficial white crust, lining the whole surface of the mouth, from the lips to the *æso-phagus*, and from thence is sometimes continued quite through the stomach and intestinal canal to the *anus*; at least it makes its appearance very plainly in this part. Sometimes, when this white crust falls off, it is succeeded by another, which is thicker, and not so white; and this by a third, or a fourth, if the disease has been neglected, or if the humours are very sharp. The oftener the crust is re-

newed, the worse it becomes, and acquires more of a yellow or brownish cast. It is commonly attended with a fever, and a great heat of the mouth, which becomes often so tender and painful, that the child refuses the breast. Sometimes, however, there is little or no fever to be observed; which happens chiefly when the thrush appears soon after the birth, and before there has been any disorder in the bowels. As to the black thrush, so often mentioned by authors who have written on this distemper, I do not remember to have seen it in infants; and as I have been daily employed amongst them for many years past, I imagine it must rarely occur, otherwise I must have met with it. In a child that I attended, of four years old, who died of a putrid fever, there was, several days before its death, a black slough on the tongue, especially towards the root, and several little angry ulcers here and there, on the inside of the lips and cheeks, which perhaps was that which some people call the

black thrush. But this was the youngest patient whom I ever observed to have it, and it seemed to be a consequence of the fever and the putrid state of the humours, not the original disease.

If the thrush is not stopt, the contents of the stomach and bowels, becoming still more acrid, producing vomiting, sour, curdled, slimy, or green stools, the WATERY-GRIPES, and CONVULSIONS.

As to vomiting and green stools, there are few infants who are not subject to them at times; and many children would thrive better if they vomited more than they do; I mean such as are liable to inward fits, without vomiting. But when this symptom becomes violent, and the stools are sour, curdled, slimy, or green, it is full time to administer speedy relief, otherwise the watery-gripes are threatened, which, for the most part, soon terminate in convulsions and death.

Though these complaints often succeed each other, in the manner above described, yet I would not be thought to mean, that they always observe the same progress. Thus, for instance, numbers of children have sour, curdled, slimy, or green stools, without ever having the thrush. Many have the thrush, without the watery-gripes, and some the watery-gripes without having the thrush. Sometimes, too, the watery-gripes come suddenly upon them, without any previous disorder, owing either to the nurse's or the child's having caught a violent cold, to some fault in the nurse's diet, to the constitution of the air at the time, or the striking in of a rash.

With regard to the cure of the THRUSH, of whatever kind it be, and at what time soever it happens—as it appears to be chiefly owing to a foulness of the stomach and bowels, attended, for the most part, with more or less of a fever, and always makes its first appearance in the mouth, proceeding gradually downwards—the most

rational method to me seemed, first to empty the stomach, and then the intestines; for, by these means, the first passages being freed of their acrid contents, I imagined that the fever would subside of course; and indeed I have very rarely been disappointed in my expectations here. For this intention I have observed nothing to succeed better than the antimonial wine just mentioned, given as a puke, more or less, according to the strength of the patient; and repeated as the exigency of the case required.

If the child is costive, a clyster, or two or three grains of the *pulvis jalapii*, rubbed with a double quantity of sugar, will be necessary to be given first, and this must likewise be repeated occasionally.

As to topical applications, the best I know in general is a solution of the white vitriol, in common water, in barley water, or in the pectoral decoction; about half a scruple to eight ounces, at first. If that

should be too weak, it will be an easy matter to make it stronger by degrees. A linen rag is to be dipped in it a little warm, and either with the finger, or tied on a bit of stick, the child's mouth must be rubbed with it, three or four times in four and twenty hours, according to the urgency of the case, or as the tenderness of the parts will admit. If he swallows a little now and then, a tea-spoonful or so, at a time, so much the better, as it helps to cleanse the stomach and bowels at the same time.

The white vitriol being so generally useful in collyriums, and of so cleansing a nature, made me first try it in a gargle, and I have found it succeed so well both in infants and adults, that I seldom use any other, except where the tongue is dry and parched. As it cleanses not only the mouth and throat, but likewise the stomach, this quality makes it doubly useful to children, who have not sense to spit out whatever the

mouth is washed with*. By means of this gargle alone, I cured the worst canker in the mouth that I ever saw, in a boy of five years old. The tongue was covered with a thick white crust, like the thrush, and the inside of the cheeks and the gums were full of angry pustules, and little fungous excrescences, like warts. The saliva drivelled from him, as if he had been in a salivation; and his mouth and throat were so tender, that though he was very hungry, it was a difficult matter to force him to take any nourishment. As he was not feverish, and had no other complaint besides those I have mentioned, I ordered nothing for him but the gargle, and he got quite well in a very few days.

But, to very young, tender infants, when,

* Spitting is an acquired habit as much as speaking; and many of the diseases, especially those of the lungs in children, are rendered dangerous in consequence of their being unable to spit out the increased quantity of mucus secreted. *Ed.*

together with the thrush, the inside of the cheeks and lips is beset with the pustules above mentioned, the juice of boiled turnips, sweetened with a little sugar, or honey, if the child is costive; or small beer boiled with a little sugar, makes a very proper gargle to cleanse the mouth with *.

* The thrush appears to be a disease of the mucous follicles, with which the whole internal surface of the intestinal canal, as well as that of the mouth, is beset. It is therefore probable that it extends throughout the whole of that passage. The best application is a mixture of borax with sugar, or honey, in the proportion of one part of the former to six or eight of the latter. A little of this may be introduced into the mouth frequently in the course of the day, which by the motion of the tongue, and the efforts of deglutition, will soon be spread over every part of the mouth and throat. For the barbarous and cruel practice of forcing a piece of rag fastened to the end of a stick, and dipped in this composition into a child's sore mouth, there can never be any occasion, or indeed apology. *Ed.*

CHAP. IV.

Of the Watery-Gripes.

THIS disease has been called the **WATERY-GRIPES**, from the stools being as thin as water, attended with violent gripes. Sometimes they are colourless, sometimes mixed with little streaks of blood, and sometimes of a brownish cast, like a kind of putrid *sanies*, of a very strong and offensive smell, but always very thin.

When a child is seized with a **PURGING**, whether the stools are sour, curdled, slimy, green, or watery, the common practice is, to give small doses of rhubarb, mixed with Gascoigne's powder, a little grated nutmeg, or the *pulvis è chelis cancrorum* ; and some prefer *magnesia*, either alone, or mixed with the *pulvis è chelis*, or the like, according as the stools are more or less loose. As to the rhubarb, I have reason to suspect, that

sometimes it may impose upon us, by giving its own colours to the stools, while they remain in other respects as before. Besides, rhubarb, to some grown persons, is very griping, and therefore we ought to be particularly careful in observing whether it has not the same effect upon children. And on this account, when there is an opportunity, it is right to ask the parents, how it agrees with them; before we order it for the infant. I look upon the *magnesia* as a safer medicine; but a better than either, as I am convinced from repeated experience, is such a puke as was mentioned before. This is going to the root of the complaint at once. For, as the green stools are owing to the too great quantity and acrimony of the bile, and the sour, curdled, and slimy ones, to a load of acid phlegm in the *primæ viæ*, the readiest way of relieving the patient is, by carrying off that load as soon as possible. For if you endeavour, as most authors advise, by antacids and absorbents, first to correct the acrimony of the peccant matter, as they style it, before you attempt to expel

it, when the case is urgent, as very often happens, it is odds that you never have an opportunity to make use of evacuants. But by unloading the stomach and bowels with a puke, which, generally speaking, in these cases, operates both ways, you give immediate relief; and what remains, may be corrected, and carried off, by means of the absorbent and purging medicines above mentioned, in case the child has not strength sufficient to bear the puke to be repeated; for it often happens, that parents, as well as nurses, neglect to call in proper assistance in time, from the too prevalent notion, as I before observed, that there is little or nothing to be done for infants; by which means they are sometimes almost in extremity, when we are first called to them. But if the child's strength will bear it, the best way is to repeat the antimonial wine every six or eight hours, till the stools begin visibly to change for the better, and then every ten or twelve hours, till they return to their natural colour and consistence. The emetic, operating upon the

phlegm and bile generally makes the child very sick at first, but when once that load is brought up, it seems presently relieved; and it very seldom happens, that the repetition of the same dose ever makes it so sick again: wherefore the dose must be increased from time to time, if the symptoms do not abate to your wish. I have seen children so bad in the watery-gripes that they seemed to be falling into convulsions, and the most desperate circumstances; who yet were by this method, in a few hours, restored to a state of safety; which I am fully assured would not have happened by the common method of treatment. Sometimes, indeed, a child who happens to be uncommonly strong, whose stomach and intestines, stimulated by their acrid contents, have emptied themselves pretty thoroughly, will then receive considerable benefit from the antacid and absorbent medicines, and especially from the chalk julep. But to throw in these medicines before the abdominal *viscera* are in a good measure freed from their stimulating load,

is counteracting nature, instead of assisting her, and allows the disease to gain ground unobserved; while, in the mean time, the child grows gradually weaker, and, at last, has not strength to bear the necessary evacuations. By means of the last-mentioned antacid and absorbent medicines, together with astringents, given by the mouth, and likewise in the form of clysters, I have frequently seen the looseness checked for some time, but then the feverish symptoms have increased, and the purging returning with double violence has quickly carried off the patient. But ever since I have practised this method of treating these complaints of the bowels by repeated pukes, I have seldom had occasion to give any thing else, except, when the child has been griped and restless after the first passages were cleansed, a gentle paregoric, such as a drachm of the *syr. papav. rhæados*, in a large spoonful of the fennel, or weak cinnamon water; repeated every three or four hours, till rest was procured.

When the stools smelt very sour, were curdled, or green, I have lately given three or four drops of the *lixivium tartari* with the emetic; and afterwards, between whiles, the same quantity in a little water, sweetened with sugar, or syrup, with very good success. When the milk is apt to curdle on the stomach, this medicine is particularly useful, and, as far as I have seen, when given in small quantities, it is perfectly harmless*.

* As many of the diseases of children are connected with acidities of the stomach, the alkalies may frequently be administered with much advantage. A dram of the prepared ammonia may be dissolved in an ounce of lact. amygdalæ, with two drams of syrup. papav. alb., and a tea-spoonful given every two hours. The volatile alkali, or spiritus ammoniæ, is still more efficacious, and may be administered in doses of ten or fifteen drops duly diluted. The sudden effect of this medicine, in relieving convulsions occasioned by cutting the teeth, is particularly noticed many years ago by Simson in his very ingenious work on medicine: "Idem spiritus, scil: salis ammoniaci, infantibus ex dentitione convulsis, aut febrientibus, datus, sævitiam morbi reprimat et refutet, nondum eductis dentibus." T. Simson de Re medica Dissertationes quatuor.—Edin. 1726. *Ed.*

As some children are very liable to have returns of these complaints for the first two or three months, the same method must be repeated occasionally. But here I must mention again, what I said before in the cure of inward fits, and of the thrush, that antimonial pukes are the best in these cases also; as they operate most effectually upon the phlegm and bile, and generally evacuate both ways. Besides, whether by carrying off the acrid bile, or by some other power, they certainly contribute to abate the fever; which is a constant and dangerous attendant of these disorders, when violent; and I am afraid such tender patients would not so well bear bleeding.

But if the child has much fever, with a high, quick pulse, great heat, and thirst (which last is known by its eagerness in sucking, or drinking), and the tongue white and dry, with other inflammatory symptoms, bleeding is absolutely necessary; nay, it ought to be the first thing that is done, and repeated, if the above symptoms do not speedily abate.

The antimonial emetics (*viz.* the antimonial wine, or a very weak* solution of the emetic tartar, which may be given as safely as the other, if properly dosed) have

* The solution I commonly use is, one grain of emetic tartar, dissolved in three ounces of water, and sweetened with a little sugar. Of this solution, a large tea-spoonful contains one drachm by measure, or a 24th part of a grain of the tartar emetic; a middling tea-spoonful contains two scruples of the solution, or a 36th part of a grain of the tartar; and a small tea-spoonful, such as poor people commonly use, contains half a drachm of the solution, or a 48th part of a grain of the tartar. To very young infants I give a small tea-spoonful; to one of a month or six weeks old, a middling one; and to one of two months or so, a large one: and so on, repeating it in the same manner as the antimonial wine. Regard must likewise be had to the strength, as well as the age of the infant.

N. B. The solution should not be kept above three or four days, because, by standing longer, the tartar separates from the menstruum, and sticks to the side of the phial, whereby the medicine is weakened. It is perhaps owing to a similar reason, that the antimonial wine is found to be uncertain in its operation: for if it is long kept, and the bottle is not shaken now and then, part of the crocus separates from the wine, whereby it is necessarily rendered weaker in its quality.

likewise this advantage, that, not being nauseous, they are easily swallowed, and stay longer upon the stomach than the *ipe-cacuanha*, which can hardly be forced down, in any preparation; and when it gets down it stays too short a while to produce any considerable effect. And this reminds me of a circumstance necessary to be mentioned, which is, that when the watery-gripes are attended with a vomiting, which is often the case, the puke should be given in small quantities, frequently repeated, till the stomach is well cleansed, provided the child is strong enough to bear it. But if the child's strength is exhausted, and especially if the stools are become less offensive, it will be necessary to have immediate recourse to an anodyne, such as the following, which I have frequently found successful in cases of this kind.

R̄ Magnes. alb. ℥ i ℥.
 Pulv. cret. c. c. opio.
 Aq. menth. piperit. s.
 — cinnam. ten. ā ā ℥ i ℥,
 Syrup. croci, ℥ ℥.

Of this a tea-spoonful, or a pap-spoonful, is ordered to be given every four, six, or eight hours, according to the child's age or strength, or the urgency of the symptoms. If, upon trial, the above is found to be not sufficiently restraining, in that case I order the magnesia to be left out, a scruple of oyster-shell powder added instead of it, and the *syrupus papaveris erratici* to be substituted in the room of the *syrupus croci*. A small quantity of the magnesia is ordered in the first mixture, to prevent the restraining ingredients from having too sudden an effect.

The antimonial pukes are likewise endowed with an anodyne quality, which makes them still more useful in many of the complaints incident to young infants; and every body knows they promote insensible perspiration, the obstruction of which is a source of a great many diseases. It is a common thing for a child to fall asleep after the operation of a puke of this kind, and the sleep, thus procured, is always refreshing, and never unkindly, or danger-

ous, as is that sometimes which is effected by opiates, though of the gentlest sort. For we meet with instances amongst grown persons themselves, where even gentle opiates have very disagreeable effects; and, instead of inducing sleep, occasion restlessness and rambling, nay, in some constitutions, a total *pervigilium* *.

* Antimonial wine, from the nature of the menstruum, and the chemical changes that it is liable to undergo, must always be uncertain in its strength. The solution, for which distilled water should always be employed, is therefore a preferable medicine. The author has been frequently accused of being too partial to antimonial emetics in the diseases of children. Mischief may doubtless have in some cases occurred from their imprudent administration; and where merely to empty the stomach is the object, a little of the powder of ipecacuanha alone, or mixed with the oxymel of squills, is a safer remedy. But whoever has observed the quiet and placid sleep which children often enjoy after the operation of an antimonial emetic, must acknowledge that some ulterior and beneficial effect is produced beyond merely the evacuation of the contents of the stomach. If the precaution here given for administering the antimonial solution in very small and divided doses is duly attended to, it cannot be considered as a dangerous remedy. *Ed.*

In this method I have, for upwards of fourteen years, treated these complaints of children; and with such success, that I can freely recommend it to others. But, at the same time, I am not so sanguine as to consider it as infallible, being certain that it sometimes must fail, in the same manner as does the bark in the cure of intermittents*. I shall mention one case which I met with a little while before I fell upon this method, wherein, probably, it would not have succeeded; and as more of that kind may now and then occur, it may be of use to give a short account of it.

A boy, about six months old, was seized with a vomiting and purging, attended with some degree of fever, great inquietude,

* I have used the same medicine, for several years past, with no less success in continual fevers in children, as also in those of the remitting and intermitting kind; and have the pleasure to find, that some eminent practitioners have adopted the same method, and found it very successful.

and he seemed to be threatened with convulsions. What he vomited, was chiefly the milk which he had sucked; his stools at first were greenish, but soon turned watery, and so continued to the last. He had been ill six days before I saw him. I ordered him first a few grains of the powder of *ipecacuanha*, which was no sooner swallowed than it came up again. After this he had the chalk julep, and starch clysters, with a few drops of the *tinctura thebaica*, which relieved him from time to time; but the symptoms still returning with great violence, he died.

Upon opening the body, I found the stomach, and the whole intestinal canal, from the *pylorus* to the *anus*, perfectly empty, which, in some measure, accounted for one symptom during the latter part of his illness; which was, that his navel seemed almost shrunk into his back. The vomiting and purging had lasted ten days, which is much longer than the common watery-gripes ever do. There were no

signs of inflammation any where in the stomach or intestines, and the liver, spleen, and pancreas, were all of the natural size and appearance. I was not a little surprised to see all these parts look so well, and was just going to finish my inquiry, when I observed, that the right kidney was larger than natural, and of a more livid colour. I therefore took it out, and cut through the convex side of it into the *pelvis*, which I found almost full of gravel, some of which was concreted, and had taken the form of that part of the *pelvis* where it was lodged. The kidney itself bore the marks of an inflammation, and that I suppose had occasioned the whole complaint, by bringing on the fever, and affecting the neighbouring *viscera*. The left kidney was not swelled, nor did it seem to have been inflamed, though it likewise contained gravel, but in a smaller quantity.

Now here was a case where the above method could not succeed (unless from the

febrifuge quality of the medicine), nor perhaps any other; but it is probable that instances of this kind very seldom occur in such young patients*. If I had suspected gravel, I should have tried the *semicupium*; but as he never had any stoppage in making water all the time, I had no suspicion of the real cause of the disease. Upon asking the child's mother, if her husband or herself were subject to the gravel, she told me she was, and had bred the child with it, as she expressed herself.

Since that, I have met with another in-

* Amongst the great number of cases which are brought to the Dispensary, I find gravelly complaints to be more incident to children than I formerly imagined, and in almost all of them they are hereditary. When there is a difficulty, or stoppage in making water from this cause, I commonly order an infusion of wild-carrot seed (*viz.* a pap-spoonful of the seed to half a pint of boiling water), sweetened with honey or sugar, to be taken to the quantity of two or three table-spoonfuls, or more, according to the child's age, and the urgency of the case, three or four times a day; and it is generally observed to have a remarkable good effect.

stance, in a child about six months old, where the watery-gripes seemed to be owing to gravel. The child was very feverish, and a good deal of gravel was observed on one of the clouts, which made me suspect that the complaint might arise chiefly from that cause; wherefore I ordered the *semicupium*, which gave him quick relief, and by means of that, together with a gentle anodyne draught, two or three times repeated, he soon recovered, without the help of any other medicine. The father of this child was subject to the gravel.

In a case of the watery-gripes, wherein it was tried several years ago, it did not prove effectual, though for two or three days at first the child seemed to be the better for it. But upon examining the body after death, it appeared, that, as far as we could judge, the case was really incurable. The body was opened by Dr. Hunter, who, upon handling the stomach gently, found the coats of it give way, as

if they had been reduced by maceration to almost a gelatinous consistence, and the small guts, their whole length, were in the same tender condition. In the mean time, there was no appearance either of inflammation or mortification, and the smell was less offensive than is usual in dead subjects. The texture of the great intestines seemed sufficiently firm, and the rest of the abdominal *viscera* had all the natural appearance. I think it will be allowed, that its not succeeding in this case could bring no disgrace upon the medicine; the tender state of the stomach and small intestines being sufficient to prevent the success of any medicine whatever.

In a child about three weeks old, that died of the watery-gripes some time since, and which I opened, I found most of the stomach, towards the upper orifice, and almost the whole fundus, in the same tender state with that of the child just now mentioned. But towards the *pylorus*, the structure was firm enough, as likewise that of

the intestines, both small and great. The stomach was quite distended with curdled milk and victuals, with which the nurse had crammed the child, mixed likewise with some of the chalk julep, but the whole intestines were remarkably empty. There was no morbid appearances to be observed any where but in the stomach; and this *viscus* being so full, while the intestines were almost empty, it looked as if the disease had been chiefly owing to a spasm in the *pylorus*, which prevented the contents of the stomach from passing into the *duodenum*. Perhaps, cases of this kind are more frequent than is commonly imagined; and it might probably be owing to the tender state of the stomach, that the antimonial solution, which was given the child, had but very little effect; and I have commonly observed, that when vomiting or purging medicines, given to infants in a sufficient quantity, have not the usual effect, it is a very bad sign. What is remarkable, this was the third child (and they have never had any more) which the

parents have lost at the same age, and in the same disease. And this was likewise the case in the family where the other died. The extremities of both felt very cold, except when kept warm by art. The face likewise felt cold, and looked very pale, pinched, and distressed.

But as I sometimes meet with parents who object to vomiting young children, and even some practitioners in physic express a dislike to it, I have fallen upon another method of treating the *diarrhæa*, which has been tried in a great number of instances, and succeeded very well. That is, by cleansing the abdominal *viscera*, by means of proper purgatives, with anodynes, intermixed in such a manner as to correct the griping quality of the medicine, and lessen the stimulus occasioned by the acrimony of the stools. For this purpose, when the child is very young and weak, I mean, before it arrives at the age of three or four months, I order the following mixture, which I have tried in a variety of little

patients for upwards of two years with very good success:

R_x Sal. cathar. amar. ℥ss.
Aq. pur. ℥ij.
Tinct. thebaic. gut. ij.
M.

To a child of a month old, a tea-spoonful may be given every four or five hours, till the purging considerably abates; and if that quantity does not check it, the dose may be increased to a pap-spoonful, or more, or another drop of the *tinctura thebaica* may be added to the above quantity of the mixture. Of this, as of other medicines, the dose must be proportioned to the age and strength of the patient, and the violence of the symptoms. If the child is much griped, instead of *aqua pura*, the *aqua feniculi dulcis*, or *seminis anethi*, with a little simple cinnamon water, may be substituted, especially in warm weather, when the mixture soon spoils. But, when the intestines are foul, and the stools very offensive, if the child is turned of four or five months,

I frequently order half a grain of calomel, made up into a small pill, with half a grain of *philonium Londinense*, to be given at bed-time, and the following draught next morning :

R Pulv. rhei opt. gr. vi. vij. vel viij.

Test. ostreor. pp^t. ℥ss.

Aq. pur. ʒiij.

-- Cinnam. ten. ʒij.

Syr. simpl. ʒi.

M.

The pill may be broken into two or three small bits, and given to the child in a little panado, or the like, but I would not have it dissolved; because the calomel being heavy, is apt to separate from the other ingredients, and stick to the side of the spoon, or tea-cup, or whatever else it is put into, which makes it impossible to know what quantity of it is swallowed. The above pill and draught must be repeated occasionally, at the interval of two, three, or four days, and made stronger or weaker, according as it agrees. I find nothing so cleansing to

the bowels of children as calomel; and if it is well prepared*, and exhibited in the above manner, it never disagrees, but generally is of great service. By mixing it with the *philonium*, its griping quality is corrected, and it is rendered more re-stringent. I find this, by much the safest and most effectual method of curing the *diarrhæa* in children, when it is owing to a foulness of the abdominal *viscera*, proceeding from indigestion, worms, or improper diet, even when attended with a swelling of the belly, and a hectic fever at nights. But when there is any scirrhus hardness to be felt in the abdomen, or a purulent appearance observed in the stools, I am afraid we must not expect much relief from medicines of any kind. In opening the body of a child which died sometime ago under my care, I found a large quantity of thin fœtid, purulent matter contained between the intestines and

* I have always had the calomel for the Dispensary from Apothecaries' Hall, being confident that it is prepared there in the most careful manner.

peritonæum. The whole *omentum* seemed to be dissolved into this fluid, excepting that border where it adheres to the *fundus* of the stomach, which had a scirrhus look. There was a number of small *laminae*, or flakes, swimming in the purulent matter, which seemed to be pieces of the *omentum* detached from that membrane by the supuration. There were several adhesions between the intestines and *peritoneum*, and likewise between the stomach, spleen, pancreas, and intestines, and of these last with one another. The liver appeared sound, and of the natural size, but the spleen was very small. The child was about two years old, very small of its age, and never had been thriving. It had been rickety for several months, and subject to hectic paroxysms, and a swelled belly, owing to the diseased state of the abdominal *viscera* above described. I only saw it two days before it died, when it was brought to me for an incessant vomiting and purging, which distressed it exceedingly, and continued, more or less, till it died. This was

not the only child that I have opened, where there was found a large collection of *pus* in the abdomen, and morbid adhesions of the *viscera*, and it probably happens more frequently than is commonly suspected; but, from that aversion which parents in general have to let the bodies of their children be opened after death, it often cannot be certainly ascertained. However, as no collection of this kind can happen without a previous inflammation, to prevent which coming to a suppuration, there is nothing so effectual as bleeding, this affords a strong argument for that evacuation in children, as well as in adults, when signs of inflammation indicate it*.

* I have opened the bodies of several children in which I have met with appearances similar to those here described. The abdomen filled with purulent matter exhaling a most intolerable smell, and the glands of the intestines enlarged and infarcted with a curdy substance. During the latter months of existence the body is extremely extenuated, and the belly much enlarged. The appetite is in general unnaturally

With regard to diet: In all cases of purging, I mean in young infants, I know nothing better than what is called *tapioca*, and by some white sago*. It is imported from Sicily, of a white colour, and granulated somewhat like the common sago, but in larger bits. It has little or no taste, and no kind of smell; is gently astringent, and rather glutinous, but not near so much as jalap, which is apt to lie too heavy on the

voracious. When these symptoms have taken place, I believe the disease is incurable. The following powders are greatly extolled by the late Sir William Fordyce in this complaint, and in the more early stages of it I think I have seen beneficial effects produced by their administration.

R Pulv. rhabarb. ℥ij.

Kali vitriolat. ʒiss.

Ol. anisi, ess. ʒ^{ss}. v.

M.

Divide into eight powders; of which, one is to be given every morning. *Ed.*

* I take the patent sago, as it is called, to be much the same as this.

stomachs of infants, especially when they are weak*.

* The following preparation, suggested by Dr. Underwood, answers extremely well as food for children liable to habitual purging. Let flour be baked slowly in an oven till it separates easily into a soft grey-coloured powder. Such a proportion of this is to be mixed with milk previously boiled and skimmed, as will make the whole of the consistence of a thin custard, when gently boiled for a short time. This food is generally relished by infants, and is very serviceable in weak bowels. Or the genuine powder of the arrow root, first made into a jelly with boiling water, and afterwards mixed with milk previously boiled and skimmed. *Ed.*

CHAP. V.

Of Convulsions.

AS to the CONVULSIONS in which most of the diseases of children terminate before they die, they are so well known to every body, that it would be needless to describe them. I take them in general to be owing to a *stimulus* communicated to the nerves, either by the acrimony of the contents of the bowels, or by an inflammation in those parts, or in the gums at the time of teething, unless where the brain is primarily affected. Wherefore, except in this last case, they are to be considered, properly speaking, as a symptom, not as a disease. Convulsions, for the most part, close the scene in adults, as well as in infants; but because they die convulsed, we do not therefore say that they die of convulsions, though this is constantly said with regard to children, merely through the ignorance of the persons about them,

who do not know what other name to give to the disease. Hence, in the weekly bills of mortality, convulsions are always said to sweep off great numbers of children. But it is necessary to distinguish between the symptomatic and idiopathic convulsions, or those in which the brain seems to be immediately concerned; because such certainly require a different treatment.

As for the first, whatever removes the *stimulus* above mentioned, or, in other words, whatever clears the bowels of their acrid contents, or renders these contents mild and inoffensive, will of course cure the convulsions. Wherefore, if the child is costive, the best way is to begin with a clyster, and afterwards give a puke, which must be repeated occasionally, and the belly kept open between whiles with the magnesia, or small quantities of rhubarb mixed with absorbents.

Sometimes they are owing to the striking in of a rash, or to a sudden stopping of

that discharge behind the ears, which is so salutary to infants, from the child's having caught cold; in both which cases the abdominal *viscera* are commonly affected, and must be particularly regarded, in the manner just now recommended. But, besides, it will be necessary to apply a blister between the shoulders, or behind the ears. The warm bath too is sometimes of great service here.

They sometimes, likewise, make their appearance previous to a rash, or to eruptive fevers, such as the measles, small-pox, and scarlet fever. Wherefore, when they come on suddenly, it is always right to enquire, whether any such infectious disease is in the neighbourhood at the time; and whether the child has yet had the two first. Thus, if the small-pox happens to be frequent in the place, and a child, who has never had that disease, after having been drooping for a week or ten days, is suddenly seized with convulsions, we may rationally conjecture, that he has received

the variolous contagion, and the eruption will begin to appear in a very short time. The same thing sometimes happens in the beginning of the measles and the scarlet-fever. Dr. Sydenham advises in these cases, that the patient be put into bed, a blister sufficiently large applied between the shoulders, and a gentle anodyne draught immediately given. This method is the most easy, rational, and successful, in such circumstances; to which I have nothing to add, except, that when the child is plethoric, and the fever runs high, I think it right to take away a little blood, before the blister is applied.

By attentively observing the above circumstances and directions, the symptomatic convulsions, if taken in time, may frequently be cured. But the *idiopathic* are much harder to manage. It is, however, a great happiness, that these do not so often occur. I think they may, for the most part, be distinguished from the other sort by the following circumstances: When

a child is seized with convulsions, without having any complaint in the bowels, or symptoms of teething, especially if they happen before the teeth shoot into the gums, and if the child has had no rash, nor the discharge behind the ears dried up, we may reasonably suppose them to be *idiopathic*.

I was called to a case of this kind about eleven years ago. A child near five weeks old, very healthy and thriving from the birth, was suddenly seized with convulsions. He had no complaint in his bowels: however the nurse gave him a clyster. It consisted only of broth and oil, and operated but once: if it had been stronger, perhaps it might have had a better effect. The child was taken ill about five in the afternoon, but they deferred sending for me till eight o'clock next morning, when he was just a dying. Now, as the child had always been remarkably well in his bowels, and, even after he was seized with fits, had no sickness, nor purging, nor swelling in

the belly, and was too young for teething, I referred this case of convulsions to the *idiopathic*. Upon inquiring of the mother, who suckled him, whether she knew of any thing that could affect the child so suddenly, and in so violent a manner; she told me, that the evening before she had been surprised and overjoyed at the unexpected arrival of her husband, who had been absent for several months, and that she apprehended this incident might have had a bad effect upon the infant*.

* Parents are in general much alarmed at the appearance of convulsions in children, and anxious to do something for their relief. The natural irritability of the nervous system in infants, renders them liable to be thrown into convulsions by slight causes of irritation: their appearance is therefore not to be so much dreaded as when they occur in adults. Indigestible food, or flatulence collected in the stomach, will throw a child into convulsions. Eruptive complaints, such as small-pox, measles, &c., are also frequently preceded by them with impunity. When they do occur, the child's feet should be well warmed at the fire, and the region of the stomach gently rubbed with a warm hand. The most proper medicines are a few grains of rhubarb in dill water, a little of the musk julep, or some drops of the spt. ammoniæ comp. *Ed.*

CHAP. VI.

Of the Hydrocephalus Internus.

ONE cause of the *idiopathic* convulsions, I mean where the brain is primarily affected, happens more frequently, I suspect, than is generally imagined, and that is a collection of water in the ventricles of the brain. Within these few years, I have met with several cases, where, upon examining the state of the brain after death, the disease seemed evidently owing to this cause; and I have seen several more, which, from the similarity of the symptoms to these I now speak of, appeared to be produced from the same origin; but the parents would not consent to have the heads of the children opened. I shall mention three cases where the brain was examined, and found to have water in the ventricles.

The first was of a girl, two years old,

who, in consequence of a scald head, too suddenly cured by external applications alone, without proper evacuations, fell into a bad habit of body, and at last died of convulsions; which, for four days before her death, followed one another very fast. I was not called in till within two days of her death, when I found her in the last stage of a low continual fever. Her pulse was very low, the tongue foul, the white of the eyes turned up, with the pupils much dilated, and the head, as well as her limbs, much agitated with convulsions. As she was very costive, I ordered a clyster with *assa foetida*, and a cordial mixture to be taken now and then, judging it very unnecessary to tease her with medicine, when there was so little hope of relief. After her death, I prevailed upon her parents to let the body be opened. There was nothing remarkable to be observed in the abdominal *viscera*, only a good deal of thick *faeces*, of a dark greenish colour, and very offensive smell, as is usual in such fevers, when the body is costive. But the ventricles

of the brain were distended with water to the quantity of four ounces, as near as I could guess; and this I took to be the immediate cause of the convulsions.

The second was likewise of a girl, about five months old, who was seized with a diarrhœa*, attended with green, foetid stools, and almost continual inward fits. The eyelids were always open, the pupils much dilated, and the white of the eyes turned up when asleep. It was the third day of the complaint when I first visited her. I endeavoured, by proper evacuants and absorbents, to remove the diarrhœa; but they had not the desired, nor indeed the usual effect, which, as I said before, is always a bad sign. The second day after I was called in, the pulse being low, and in order to relieve the bowels, which blistering

* This is the only instance that I recollect having met with, where the hydrocephalus was attended with a diarrhœa, most patients in that disease being remarkably costive.

sometimes does, I ordered a blister to be applied to the back, and, during its application, the child rested better, and was seemingly easier, especially for the first twelve hours; but soon after it was removed, though the *cuticula* was not taken off, she fell into convulsions, that continued till her death, which happened on the eighth day of her illness. A variety of nervous medicines was tried, but to no purpose; and indeed no wonder, for, upon dissecting the brain, there were found upwards of six ounces of water in the ventricles; and the substance of the brain, near the ventricles, was as soft as any pap. The nurse observed that the child, long before her last illness, had been remarkably dull and spiritless, never smiling, as infants frequently do, when they are in tolerable health. She likewise often remarked, that, during the child's sickness, while she was lying on her lap, her head felt very heavy, and the back part of it unusually hot; which last symptom I have observed to be

generally a very bad sign, when children are indisposed.

The third was of a boy, three years of age, who had been ten days ill, of what was thought to be a worm fever, before I saw him. When I first visited him, he was very much convulsed, his head and hands greatly agitated, the pupils of the eyes much dilated, with the white of them frequently turned up. His pulse was quick and low, and the respiration laborious. His belly was not remarkably hard, nor swelled, but he had been all along costive, and his stools were blackish, and very offensive. I ordered him a purging clyster, with a drachm of *assa foetida* dissolved in it, and likewise a mixture of a solution of *assa foetida* in pennyroyal-water, with some *spiritus Mindereri*, and sweetened with syrup of orange-peel. But he took very little of the medicine; for he died that night. Having had several symptoms of worms, and actually voided two long round ones by stool,

during his illness, it was looked upon as a worm case; but as I suspected, from some of the appearances above mentioned, that there probably was a collection of water in the brain, I desired that the body might be opened, to which the parents gave consent. On examining the stomach and intestines in the most careful manner possible, there was nothing remarkable found, only a single worm, not very large, of the same kind with the two which the child had voided, contained in the *ilium*, and a considerable quantity of thick, dark-coloured, very fœtid excrement, in the great intestines; but the ventricles of the brain were distended with water. The parents of this child had lately lost another fine boy, about two years older, by the same disorder, as far as I could judge from their account of the case. The father is a fishmonger, and lives in a very damp situation, which I have often observed to be extremely pernicious to children, as well as to adults.

I could mention many more cases of a similar kind; but as none of them afford any insight towards curing the complaint, I think it quite needless to trouble the reader with them. I have had the misfortune to be called in, almost always, in the last stage of the disease, generally but a few days before the death of the patient, and have sometimes been a good deal puzzled to discover the real complaint, from its near resemblance, in many symptoms, to a worm fever, or that low kind of fever, where the intestines are loaded with green, viscid, foetid excrement, such as was found in the last case above mentioned. I have constantly enquired, as carefully as I could, into the common diagnostic symptoms observed at the beginning of the disease, or before I was called in; such as head-ache, sickness at the stomach, pains in the limbs, and dilatation of the pupils, &c., but have received very little satisfaction. Indeed, I never could be rightly informed about the alteration of the pulse mentioned by

Dr. White as the most certain diagnostic in the second stage of the disease, *viz.* becoming much slower than in the first, while the feverish heat of the skin is still kept up, and sometimes rather increased; I say, I never could be rightly informed, how long that alteration of the pulse had taken place. As to the dilatation of the pupils, though, in general, it is very remarkable, and, joined with the coma, convulsions, and squinting, tends to point out the complaint; yet I have met with two or three instances where it was hardly observable till within a few days of the patient's death. On the other hand, I have attended children in worm fevers, or in the slow fever just now mentioned, where the dilatation of the pupils has been very considerable, and the child comatose and convulsed, when, upon giving a purging clyster, and afterwards a sufficient dose of calomel to cleanse the *primæ viæ*, the symptoms have soon abated; and, by repeating the calomel at proper intervals, the child has quickly recovered. In short, in many cases I have found this to be the

most certain method of distinguishing between these two complaints; and so far have I succeeded in my diagnostic of the disease, that whenever the head has been opened, after death, at my desire, on the supposition of a collection of water in the brain, I have seldom been disappointed. But, though by means of proper attention, and the information received from persons who had the care of the children before I was called in, I have been able, for the most part, to satisfy myself with regard to the *diagnosis* of the disease; yet I never entertained much hope of being able to cure it, till some time ago, that a book was put into my hands by my ingenious friend Dr. John Hunter, physician to the army, containing a very strong instance of its having been cured by Dr. Dobson, lately of Liverpool, but now of Bath, published in the *Medical and Philosophical Commentaries of Edinburgh*, vol. vi. part ii. But as this book may not be in the hands of many of my readers, and I look upon the method of cure, from the success attending it, as well worth adopting, and, by all means,

of being recommended to the attention of the public, I have thought proper to transcribe it just as I found it, and it is as follows. See Medical Commentaries, p. 220, l. 23.

CASE I.

Of Hydrocephalus Internus.

“ On the 13th of February 1775, I was called to the only son of Mr. C., a gentleman of this place: the child was between three and four years of age, had been indisposed about eight days, and had frequently complained of pain in his head, and weariness, and pains in his limbs; had been sick by fits, and sometimes vomited; was feverish, and could not bear the light.

“ I was much alarmed on hearing this account, as the *hydrocephalus internus* had already proved fatal to three children of this

family, who had all been under my care. And that this had been the disease was evident, both from the symptoms and the appearances on dissection. But my alarm was much further increased, on examining the little patient. The pulse I found very frequent and irregular. The head hot, the cheeks flushed, the pupils dilated, and a great degree of strabismus. There remained no doubt with respect to the nature of the disease.

“ An emetic, some calomel powders, and a purgative had been administered, without affording any relief. I directed the pediluvium, and emetic tartar, to be given in such doses as to excite nausea.

“ February 14th. The symptoms the same, with frequent startings, disturbed sleep, and tossing from side to side on the pillow. A blister was applied between the shoulders, the pediluvium repeated, and the emetic tartar continued.

“ 15th. Comatose, restless, and shrieking

by fits. The pulse slower than in health, and the eyes insensible even to the impressions of strong light.

“ As I had no hope of doing any thing effectual for the recovery of my patient, I paid my visits, prescribed, and gave directions with a foreboding and heavy heart. Anxiously, however, considering the case in different points of view, and fully convinced that it was vain to pursue the usual line of practice, it occurred to me, that mercurials, so far urged as to enter the course of circulation, and affect the salivary glands, might possibly reach the system of absorbents in the ventricles of the brain, and thus remove the extravasated fluid.

“ The short continuance of the disease, and the apparent strength of my patient, were favourable to the trial of this method. No time, however, was to be lost. The parents were consulted, and readily gave their sanction to the proposal; for they were convinced, that, unless some power-

ful steps were taken, this, their only son, must be numbered with those of their children who had already fallen a sacrifice to the disease.

“ The mercurial course, therefore, was commenced, and urged on with caution and expedition. In forty-eight hours the breath began to be offensive, the gums were reddish and swelled, and the symptoms of the disease, so far as could be distinguished, were somewhat abated. In forty-eight hours more, the ptyalism came on, and the disease was evidently declining. Between the 15th and the 22d, he took twenty grains of calomel, and one drachm of the strongest mercurial ointment was likewise rubbed in well upon the legs and thighs. The dose of calomel was one grain, mixed with a little sugar, and repeated at such intervals as the circumstances of the case pointed out.

“ After the 22d, no more mercurials were administered, a moderate ptyalism

continued for five or six days, then gradually ceased, and the disease was entirely removed."

C A S E II.

Communicated by Dr. John Hunter.

" A child, two years and two months old, the daughter of Mr. Smith, No. 26, New Compton Street, Soho, had the small-pox in July 1780, from which she recovered well; but towards the end of August she began to lose her health. Her head, as her mother said, grew larger, and she had several fits of stupor, and insensibility. I saw the child on the 14th of September, about three weeks after the commencement of her illness, and then she was in a comatous state, knew nobody, nor took notice of any thing. The open of her head, as well as her head itself, was, by her mother's account, sensibly enlarged since her disorder had come upon her. The

hairy scalp was covered with numerous large blue veins, which were greatly distended on the patient's making any effort in coughing, or otherwise. She could not support her head at all when her body was raised, and it fell backwards or forwards as its natural gravity carried it. When in an horizontal posture, she kept constantly rolling it about, and was always moaning, putting her hand to it, and shrieking out violently from time to time. The pupil of her eye was of a moderate size, but totally insensible to light, neither dilating nor contracting when exposed to a strong one. Her appetite for food seemed pretty good; that is, she readily swallowed what was offered her. Her pulse was quick; but from the constant motion of her hand to her head, it could not be counted.

“ Several doses of physic, and a vomit, had been given her. Ten grains of calomel, rubbed with one drachm of sugar, was divided into seven doses, of which one was given every night at bed-time, and a blister

was applied over the open of the head. The calomel produced daily several loose stools; but the blister did not rise at all, owing, probably, to its being carelessly applied.

“ The first sign of amendment was, the patient’s being able to support her head better, which happened on the 4th or 5th day from beginning the above course. In three days more, she was able to move her head nearly as well as when in health. About the 9th day, a considerable discharge of saliva came on, and the number of loose stools was diminished. On the 12th she began to recover her senses; she knew her mother, and called for some things she wanted. A dose of calomel was given then only every other night, and the spitting went off in four or five days. From this time she continued to regain her strength, and recover in every respect, except that she remained totally blind. On examining her eyes, the pupil was not more affected by the light than before, notwithstanding

which I could perceive it had not quite lost its motion; for, while standing by the child, I several times observed it to vary in size, though from no external *stimulus*. It is to be noted, that after the spitting ceased the dose of calomel was repeated every night as at first; and on the 19th of October she recovered her sight, which was about a fortnight after her health had been re-established in other respects, and about five weeks after she had become blind. She saw at first but imperfectly, and her sight seemed to go and come. It improved, however, daily, and by the 31st was nearly as good as ever, except that the pupil was larger than in common, and her mother thought her not so quick in distinguishing minute objects as formerly. The large blue veins had entirely disappeared on her head. After the 19th, the dose of calomel was repeated every other night only, and it was directed to be continued two or three weeks, in order to confirm the cure, and prevent a relapse.

“ It ought not to be omitted, that at the time I first saw the patient, her mother had given her, for several nights preceding, an opiate, which she bought under the name of *Godfrey's cordial*, with a view to quiet her moaning, and procure sleep. I desired it to be left off, but the child was more restless and uneasy for five or six nights that she had none of it, and upon returning again to its use her nights became better. Instead of that medicine, I afterwards substituted three or four drops of the *tinctura thebaica*, with an equal good effect.

“ The progress of the disease was slow in the above case, owing, most probably, to the bones of the head giving way in part to the pressure of the water contained within the ventricles of the brain; for when the bones are united, it proves much sooner fatal. In such a case, both larger doses of the mercury, and those more frequently repeated, would be requisite, than what I used.”

The next case came under my own inspection, of which the following is an account.

C A S E III.

“ William Targot, son of John Targot, shoemaker, in Apollo court, Fleet street, aged twenty months, was brought to the Dispensary for the Infant Poor, on the 10th of February 1780. He was a thriving, lively child, till about ten months before he was brought, when he was taken with convulsions, which used to come upon him about four in the morning, and to continue for an hour, or an hour and a half. He frequently screamed out during the fits, though not always, and was very often feverish; which last symptom showed itself more in the heat of the skin than in the quickness of the pulse, as it does in the second stage of the *hydrocephalus internus*. He likewise often yawned while the fits

were upon him, and seemed greatly distressed with wind in his stomach. They usually went off with a profuse cold sweat, especially about his head. From being a lively child, he became dull and spiritless; his body was costive, and his stools were bilious, and very offensive. As the child was about teeth, and convulsions being so common a symptom of teething, the parents paid but little attention to them at first; but after some months, the paroxysms becoming more frequent and severe, they began to be alarmed, and applied to the Dispensary for relief. At this time his head was considerably enlarged, his right eye squinted, with the pupil a good deal dilated, as was also the pupil of the left, and his sight was very imperfect, which appeared by his manner of groping for any thing that was offered him. He had likewise lost the use of the right side almost entirely.

“ Having a little while before read an account in the Edinburgh Medical Commentaries, of a case of the *hydrocephalus in-*

ternus being cured by means of calomel and the mercurial ointment, and the present case being so strongly marked with the symptoms of that complaint, I thought this method well worth trying, especially as every thing I had tried before against that disease had proved unsuccessful. I accordingly ordered twelve grains of calomel to be made into twelve pills, with a sufficient quantity of the *electuarium è scordio*, one of which was to be taken twice or thrice a day, according as they should operate; that is to say, I wished them to give him two or three stools in the four-and-twenty hours, if his strength could well bear it. The nurse was likewise directed to rub about the bigness of a large pea of the *unguentum ceruleum fortius* into the inside of each thigh, a little above the knee, every night at bedtime. On the 28th of the same month, the child, having taken all the pills, was brought back to the Dispensary. The pills had agreed very well, and brought away a great deal of slimy, foetid excrement, which had sensibly relieved him. The ointment,

through the negligence of the nurse, was not applied; but the pills, having agreed so well, were ordered to be continued. From that time till the 5th of March he took twenty of the same pills, and from thence till the 16th, four-and-twenty more. At this time, they seemed in some measure to have lost their opening effect, that is to say, they seldom gave him a stool extraordinary a day. For this reason, as they otherwise agreed with him, and not the least symptom of salivation appeared, and as he was always best when his body was most open, the dose of the calomel was increased to a grain and a half in each pill, of which he took twenty-four from the 16th of March till the 13th of April following; about which time his head appeared to be rather smaller; the pupil of the right eye was not so much dilated, nor did he squint quite so much; neither were the fits altogether so frequent, nor so violent; and his sight was more perfect, as he more readily laid hold of any thing that was offered him. But as his sight became better, and the size of the

head diminished, he seemed to grow foolish, being almost always laughing, without any apparent cause. By this time his breath smelt pretty strong of the mercury, and he drivelled a good deal at times, though not more than some children often do when they are about teeth. Wherefore, as the pills still agreed, and the weather was very favourable, the dose of the calomel was increased to two grains in each pill, of which he took twelve from the 13th till the 30th of the same month, when, the child being rather costive, another grain of calomel was added to each pill, and of these, from the 30th of April till the middle of May, he swallowed down twelve. On the 16th of May, the pills ordered contained four grains of calomel in each, and of these he took a dozen in the space of a fortnight. On the 2d of June, two grains more were added to each, with directions to take one every night, at bed-time, when costive, provided no untoward symptoms from the mercury appeared. And this never happening to be the case, the pills were continued till the

end of September, when the child was so well, that the parents left off bringing him. During this last period, that is, from the 2d of June till the end of September, he took seventy-four pills, of six grains each, which barely kept his body open, and raised no spitting to speak of.

“ I should have been glad to have given a more circumstantial account of this case, but the child being nursed at some distance from town, and I having no opportunity of seeing him but when he was brought to the Dispensary, it was quite out of my power. However, as it now stands, I believe it will be allowed to be so strongly marked with the symptoms of the *hydrocephalus internus*, as to render it pretty evident to have been that complaint; and as no other medicine besides the calomel was exhibited, it affords a strong proof of the efficacy of that remedy in the above-mentioned disease. The quantity of calomel taken was remarkably large for a child of that age, amounting, in the space of five months and a half, allowing

time for the last quantity ordered to be taken, to be upwards of six drachms. But I have often observed, that young children in general bear calomel much better, in proportion to their age, than persons that are grown up; and I don't know any medicine so generally useful in the complaints of children, especially in worms, or any foulness of the bowels, provided it is well prepared, which ought to be carefully attended to. For this reason, whatever calomel has been wanted for the Dispensary, I always have supplied from Apothecaries' Hall, as being the place where one may depend on having it the most carefully prepared."

CASES

By the Editor.

"The practice of administering active purgatives in cases where the symptoms give reason to suspect the presence of hydrocephalus, is now more prevalent than when

the author wrote. The symptoms of the more early stages of marasmus and hydrocephalus are of difficult discrimination: it is fortunate however that the same class of active remedies, especially calomel, are equally useful in both diseases. A few years ago I opened the body of a child that was supposed to have died of water in the head. On examining the brain, no traces of such a complaint were discovered. The child had been daily taking purgative medicines, and the whole tract of the intestinal canal was found empty, but the gall bladder was greatly distended with inspissated bile. Very lately I attended a child three years of age labouring under many of the symptoms indicating hydrocephalus. Purgatives were administered so as to produce four or five stools daily, for at least ten consecutive days, without any manifest advantage. Instructed by the event of the case just detailed, at this period, six grains of calomel were given in the evening, and a draught of infusion of senna with jalap the following day. This produced a

copious discharge of fæces, deeply tinged with dark green bile. From that moment the child began to recover, and was in a few days restored to its usual health. This case illustrates the superiority of calomel as a purgative in obstructions of the bowels in children, and at the same time proves the necessity of inspecting the stools, not trusting to the reports of their frequency, but forming a judgment of what is requisite to be done from their appearance.

“ I do not mean to assert that after aqueous fluid has been effused into the ventricles of the brain, it is capable of being removed by the operation of any medicine; but I do believe that a train of symptoms which would otherwise terminate in this complaint, may be interrupted by duly persevering in the use of appropriate remedies. And it is to be observed too, that the torpor, and inactivity of the bowels, which requires very powerful doses of medicine to act upon them, is one of the early indications of the approach of this complaint.

“ Children of very acute intellects and amiable dispositions are certainly most liable to the attack of hydrocephalus. A boy now ten years of age, who at an early period of life was rescued from this complaint, by which his parents had previously lost two children, by the accidental breaking out and copious bleeding during the night of some leeches which had been applied the day before, is at this time the most acute and ingenious lad of his age I ever knew. I lately attended two boys about ten or eleven years of age, severally the best scholars in the school, who both died of this complaint. At a period of life so advanced as this, calomel combined with digitalis may be tried with some prospect of advantage.

“ Hydrocephalus has occasionally been supposed to be occasioned by the suppression of eruptions on the scalp, or scald head, &c. The possibility of this event should diminish the anxiety of parents about the cure

of these complaints, which often continue for a great length of time without any serious injury to the constitution. When hydrocephalus appears to be the consequence of the suppression of these complaints, the head should be shaved, and a large blister applied over the whole surface, with a view of re-establishing the discharge."

" While this sheet was in the press, I have been called to visit a boy five years of age, brother to one of those mentioned in the preceding page, whose head was examined after death, and found to contain water. He was lying in bed with his eyes half closed, the pupils were not dilated, but he took no notice of any thing that was said, or presented to him. His pulse was 120. Every now and then he uttered a sort of moaning shriek, at the same time putting his hand up to his head; his breathing was also slow and interrupted; symp-

toms which are generally supposed to indicate the presence of hydrocephalus. He had been ill about a week, and had taken some gently opening medicines under the care of the family apothecary. I entertained but little hope of being of any service to my patient. A blister was however applied to the nape of the neck, and a pill containing one grain of hydrarg. mur. mit. and half a grain of pulv. digitalis purp. was directed to be administered every third hour. After eight of these pills had been taken, a most copious discharge of dark-coloured slimy fæces, accompanied with a plentiful flow of urine, took place. The little patient almost immediately recognised his parents, and asked for something to eat, which he had not done from the time he was taken ill. In a few days he recovered his usual health. It may be said, that this was not a case of hydrocephalus, but the same observation applies to every instance of a recovery after similar symptoms have taken place, for the actual existence of the disease can never be ascertained till after death.

The event of this case I think, however, justifies the trial of the same plan of treatment, where symptoms give reason to suspect the presence of hydrocephalus internus." *Ed.*

CHAP. VII.

Of Teething in general.

I COME next to TEETHING, which, in the same manner as was observed on convulsions, is said to carry off a much greater number of children than it actually does; for almost all children that die while they are about teeth, are said to die of teething. Children who are seized suddenly with strong convulsions, which quickly carry them off while they are cutting their teeth, may often be said to die of teething; but we cannot be sure that this is always the case neither, as there are instances of the same kind of convulsions occurring, both before and after the usual time of cutting the teeth; witness the case of the boy above mentioned. But except in such cases, which seldom happen, teething, of itself, is not properly a disease; because, though many children die while they are

breeding and cutting their teeth, yet there are several who breed and cut them without any bad symptom. DR. CADOGAN, in his ESSAY upon NURSING, &c. p. 31, makes the following reflexions: “ Breed-
“ ing teeth has been thought to be, and
“ is, fatal to many children; but I am
“ confident this is not from nature; for it
“ is no disease, or we could not be well
“ in health till one or two and twenty, or
“ later. Teeth are breeding the greatest
“ part of that time; and it is my opinion
“ the last teeth give more pain than the
“ first, as the bones and gums they are
“ to pierce, are grown more firm and
“ hard. But whatever fever, fits, or other
“ dangerous symptoms, seem to attend
“ this operation of nature, healthy chil-
“ dren have sometimes bred their teeth
“ without any such bad accidents; which
“ ought to incline us to suspect the evil
“ not to be natural, but rather the effect
“ of too great a fulness, or the corrupt
“ humours of the body put into agitation
“ by the stimulating pain the tooth causes

“ in breaking its way out. This, I believe, never happens without some pain, and possibly a little fever; but if the blood and juices be perfectly sweet and good, and there be not too great a redundancy of them, both will be but slight, and pass off imperceptibly, without any bad consequence whatever.”

Thus we see it is the Doctor's opinion, that the dangers which attend teething are owing to too great a fulness, or the corrupt humours of the body being put into agitation by the stimulating pain the tooth causes in breaking its way out. But whether there is too great a fulness, or the humours are corrupted, proper evacuations must be of the greatest service; and in general we find, that children who drivel plentifully, and are loose in their body, while they are about teeth, cut them the easiest. Whenever therefore it happens, either from the child's having got a cold, or from some error in diet, or accidentally catching a fever, that these evacuations

are stopt, we must endeavour to restore them as soon as possible. For this purpose the best way, if the child is costive, is to open the body with a clyster, or a gentle dose of physic, if the case is not urgent, and afterwards give a puke; repeating it as occasion requires. This method I have tried many times with success, and even when there was a fever attending the teething.

Towards the end of August and the beginning of September 1776, a fever was frequent amongst children at HAMPSTEAD, where I then practised; and as several of them happened to be about teething at the time, the distemper was looked upon, by some, as entirely owing to that cause. But whether it was properly what they call a teething fever or not, to those who cut teeth during the time of it, it was certainly as bad; and would no doubt have been considered as such, if they had died of it. The fever was at first very high, but in all of them, after a day or two, it remitted;

that is, it grew sensibly worse in the evening, and better towards morning; and in some few, after having lasted in this shape about a week, it came to an intermission. Most of these children were threatened with fits, and some had slight convulsions. As none of those whom I had the care of were costive, but most of them inclined the other way, and some had a purging, I puked them all as soon as I was called, which seemed to have a good effect. Afterwards I gave them small alterative doses of the antimonial wine, or of a very weak solution of the emetic tartar, with or without the *pulvis è chelis*, according to the state of the bowels, made up into a mixture; a dose of which was to be taken every four, five, or six hours, as the violence of the symptoms, and the age or strength of the patient, required; and they all recovered. Even where the fever intermitted they also got well, by pursuing the same method; only every now and then, according as the children could bear

it, I increased the dose of the alterative so as to make it puke them a little ; in which operation it always discharged more or less bile.

But I must here add, that when the fever runs high, and the teeth are near cutting, especially the grinders, which, on account of their bluntness, do not pierce the gum so readily, it will be proper to use the fleam. This I have sometimes seen give immediate relief, but have often been disappointed. However, in the above circumstances, if the child is convulsed, and the jaw not locked, it is certainly right to try it*.

By way of supplement to what was published upon the above subject in the

* The great advantage often produced by giving ten or fifteen drops of the spiritus ammoniæ properly diluted, in convulsions connected with teething, has been already noticed. *Ed.*

Essay on the diseases most fatal to infants, I hope the following brief history of teething will not be useless, nor unacceptable to the public.

The time of teething varies in various subjects, beginning in some at the age of four or five months, and in others, not till they are fifteen, eighteen, or even sometimes twenty months old. But the most usual time is from seven till ten months. The most natural order in which they are cut is as follows: First, the two fore-teeth of the lower jaw (for they are commonly cut in pairs); then, the fore-teeth of the upper jaw. The next in order, commonly, are the two next to the fore-teeth of the upper jaw; and after these, appear the two next to the fore-teeth of the lower jaw. Then come the two foremost grinders of the upper jaw, and after them the two foremost grinders of the lower jaw. The two eye-teeth make their appearance next; and, some time after, the two teeth opposite to them, in the lower jaw. This, as I said above, is the usual

order in which the teeth appear, when the teething is natural. But many children cut their teeth cross, as it is called, and this circumstance is worth attending to; because they seldom or never get their teeth so easily when they cut them cross, as when they do not; and therefore, in this case, they ought to be the more carefully watched. Thus, some children, instead of cutting the two foremost teeth of the lower jaw first, cut the two next to these, *viz.* one on each side of them. Next, perhaps, come the two upper fore-teeth, or sometimes, though very seldom, the two next to these. Then come the foremost grinders. Sometimes, but very rarely, the foremost grinders make their appearance before the teeth next to the fore-teeth; and I have lately met with two instances, where the foremost grinders appeared the first of all*.

* These two children were very late in beginning to cut their teeth, one being about two years old, and the other two and a half. This last had eight teeth lanced at once, when he first came to the Dispensary. They had both been subject, for some time, to the fever treated of in the following pages.

But I never saw the eye-teeth, nor the two opposite to them, cut before the fore-teeth, and the foremost grinders. As soon as the eye-teeth, and the two opposite to them in the lower jaw, are all cut, the danger of teething is generally over.

CHAP. VIII.

Of the Hectic Fever during the Time of Teething.

DURING the time of teething, or part of it at least, many children are subject to a kind of hectic fever, which carries off numbers of them, if it is not properly treated. It generally begins first in the night; and is attended with restlessness, and sometimes with startings and little catchings in the time of sleep, especially if the child is costive. If there is nothing done to remove it, the fever gradually increases, the heat becomes more sensible, the paroxysms longer, and sometimes the startings more violent and frequent. By degrees, if the child is still neglected, it becomes a remitting fever, growing worse in the afternoon, and the paroxysm increases as the evening and night approach, and, without speedy assistance, soon terminates in a con-

tinual low fever, and death. In this last fever the pulse is very quick and low, the skin hot and dry, the eyes dull and heavy, with the white of them frequently turned upwards during sleep, the tongue furred, the stools generally of a dark green, or blackish colour, of a viscid, slimy consistence, and a very offensive smell; the urine crude, of a dusky colour, and sometimes smelling very strong, like spirit of harts-horn. The child is often teased with a dry, tickling cough, rubs his nose frequently, is restless, or, on the contrary, perhaps comatous, lying with his eyes half open, as if asleep, but more properly in inward fits. He has all the symptoms of worms, except voiding them, is seized with frequent startings and catchings, which at last end in fatal convulsions.

As this fever is most incident to children of a costive habit of body, and whose stools are very foetid, the most natural way of treating it, is by repeated gentle purges,

adapted to the age, strength, and constitution of the infant, till the fever is carried off, and the stools are reduced to a natural consistence, colour, and smell. For this purpose, I do not know a better medicine to a child of eight months, or upwards, than a small pill of well *levigated* calomel, from half a grain, to one, two, or three grains, according to the age, and other circumstances, made up with a little *diascordium*, given over night, and purged off next morning with a proper quantity of rhubarb, infusion of senna, manna, or the like. I have given calomel, in cases of this kind, to several thousands of children, with remarkable good success, and never observed any bad effect from it. I have likewise found Dr. William Fordyce's *Pulvis antihecticus et antirachiticus Infantum* given in the intermediate days, very useful in such cases*.

* The *Pulvis antihecticus et antirachiticus Infantum*, is as follows :

R_x Kali vitriolat. ʒ ss.

Pulv. Rad. Rhabarbari, gr. iij. iv. v. vi. vel. viij.

If the child is open in his body, and is much troubled with phlegm, or sickness at his stomach, the antimonial solution, given in a sufficient quantity, to vomit two or three times, about five o'clock in the evening, and repeated occasionally, is of the greatest service. I direct it to be given commonly at this time, because, if the quantity taken at first should not operate, it may be repeated at six, and the stomach be settled by seven, which is the usual hour for children to go to rest. Besides, as the solution is endued with an anodyne quality, it, generally speaking, disposes them to sleep. The same medicine has likewise a very good effect with regard to the cough, which often attends this fever, and teething in general. But then, on account of the cough, as well as the fever, it ought to be repeated every afternoon, or once in

M. pro una dosi, omni mane sumend. per 14 dies, vel dum cesserit febris hectica, aut tumor abdominis.

A new Inquiry into the Causes, Symptoms, and Cure, of Putrid and Inflammatory Fevers; with an Appendix on the Hectic Fever, &c. p. 227.

two or three days, according as the case requires, till the symptoms abate, or even till the disease wears off; care being still taken to keep the body sufficiently open. If the feverish paroxysm comes on late in the forenoon, or early in the afternoon, I then direct the solution to be taken an hour and half, or two hours, before the fit, so that the operation may be over before the time of the fever's coming on. But I never give it to children in the morning, while the stomach is empty, unless, upon trial, I find them hard to vomit, lest it should strain them too violently; nor do I ever give a larger quantity for a dose, than is just sufficient to give them two or three heaves, without making them drink any thing to work it off; unless it should happen to strain them too much, in which case some barley-water, balm or mint tea, common tea, or any thin watery liquor, may be given them to drink.

In the mean time, it is highly necessary to take proper care of the diet. The child

must not taste any animal food, must have nothing that is oily, or clogging to the stomach, and should never be allowed to feed heartily at a time. There is nothing more prejudicial in a cough, of any kind, than overcharging the stomach. The properest food in this case is sago, panado, bread and milk, with some almond soap (about the bigness of a small filberd to a pint of milk) dissolved in it, and sweetened with sugar, plain bread or rice-pudding, apples boiled, roasted, or baked, turnips, or mealy potatoes sound and well-boiled, currant-jelly, or raspberry-jam, baked pears, &c. with or without bread.

If the child is at the breast, the nurse's diet must be taken particular care of. She must not eat salted nor fat meat, nor cheese, salt butter, nor fish, nor pye-crust, nor meat pyes. The less animal food of any kind she eats the better; and she must confine herself chiefly to plain puddings, greens, carrots, turnips, potatoes, and such like diet.

If either through neglect, or mismanagement, or from any other cause, the fever becomes continual, then it must be treated in the same manner as the low continual fever in adults, *viz.* with antiseptics, febrifuges of different kinds, suited to the age, constitution, situation, season of the year, and other circumstances of the little patient; care being still taken to keep the body open with gentle eccoproticks, cleansing the bowels by degrees of their putrid contents, which may be looked upon as the chief *fomes* of the disease, and at the same time supporting the strength with suitable antiseptic nourishment. But this is too large a field to enter upon at present, and has been professedly treated of, within these few years, by several eminent writers.

CHAP. IX.

Of the Tooth Rash, &c.

BUT before I dismiss this subject of teething, I must not omit mentioning, that children, while they are about teeth are frequently subject to various sorts of eruptions, commonly called a RASH. Sometimes it spreads all over them and appears very much like the itch. Sometimes it is confined to the head and face, putting on the form of very large scabs, or blotches, a good deal like the small-pox, just after they are turned. Whatever sort it be of, if the child is otherwise well, and not costive, nor feverish, nor the stools remarkably offensive, there is no great occasion to be alarmed about it. But if the child is feverish in the night, bound in his body, and the excrements have an unusual fœtid smell, it becomes highly ne-

cessary to adopt the same method and regimen as was above recommended in the hectic fever, and to persevere in it, till the above-mentioned symptoms are gone, in which time, for the most part, the rash will likewise disappear; unless it is owing to some sort of humour in the family, or derived from the parents, in which case we must inquire into the kind of humour as much as possible, whether it is scrophulous, scorbutic, or the remains of the ancient leprosy, or perhaps venereal. Though I have had a great many cases of this kind under my care, and almost all of them have done well, yet I have not hitherto been able to establish any certain method of cure, but have been obliged to try various remedies, in order to accomplish the desired end. Thus, if the scabs are moist, and apt to itch, and the child's body costive, I give the *æthiops mineral*, or the *lac sulphuris*, night and morning, in a sufficient quantity to keep the body soluble. If the eruption is dry and scurfy, and the child a year old,

or upwards, I direct a quantity of *Kermes mineral*, from a quarter of a grain to a whole grain, or more according to the child's age and strength, to be added to each dose of the *lac sulphuris*, or mixed with the testaceous powders, if the child is of a lax habit. And to very young children, small doses of the antimonial wine, night and morning, increased drop by drop, till the morning dose makes them a little sick. During the whole course, I purge them once a week at least, insist upon a strict regimen with regard to diet; and if the child sucks, I forbid the nurse the use of salted meat, or fat meat, &c. as mentioned above in page 88; and of all spirituous liquors. Sometimes, when the humour has been violent, and the face much disfigured by it, which made the parents of the child impatient to have the complaint removed, I have seen very good effects from a small blister applied to the* hind part of the head, or the nape of the neck, and kept running

* Instead of applying the blister to the hind part of the head, as here recommended, I have, for some time

for some time. For this last purpose, the ointment is the best that I know, far better than *unguentum ad vesicatoria* of the London Dispensary, as giving less pain, and not occasioning any strangury, which the other frequently does.

℞ Cantharid. pulv. ℥i.

Coque in Aq. font. lib. ss. ad ℥iv.

Adde Unguent. Basilic. flav. ℥iv. et coque iterum ad liquoris consumptionem.

When the scabs are very moist, and the parts apt to be raw, I have used Goulard's *eau vegeto-mineral**, by way of lotion, with very good success. Preparations of lead being in general reckoned dangerous, I was cautious of using any of them, even externally, till I read Mons. Goulard's treatise in the *Extrait de Saturne*, wherein he

past, directed it to be applied to the fore part, between the forehead and the fontanelle, which I find answers much better, especially when the eyes are affected by the humour.

* This water is composed of two drachms of Mr. Goulard's *Extrait de Saturne* (*Extractum Saturni*), half an ounce of French brandy, and a quart of water.

mentions such a great number and variety of cases in which it had succeeded, that I thought myself sufficiently warranted to make trial of it, which I have done repeatedly, in a number of patients, with remarkable success, as I said above. But if the rash is violent, of long standing, and attended with the hectic or night fever, and foetid stools, which is very often the case, I never make use of any outward application, except a blister to the head, till the body has been thoroughly cleansed, and the fever removed. Here too I have a particular regard to the diet, and give strict injunctions about it. I forbid all animal food, while the fever remains, and the stools are foul, and unusually foetid; which last circumstance is well worth attending to, nay necessary to be regarded, in various complaints of children.

If the rash has a venereal appearance, several of which I have met with amongst the lower class of people, I give the *hydrargyrus cum creta*, in small quantities, be-

ginning with two or three grains night and morning, if the child is very young, and increasing it by degrees to five or six, or more, according to the obstinacy of the case, and the age and constitution of the patient; taking care, all the while, to keep the body sufficiently open; and, in general, I have found it to answer exceedingly well. Indeed, for some time past, I have ordered it in almost every kind of rash, when there was no fever, with uncommon success, either alone, or mixed with *magnesia*, the *lac sulphuris*, or the oyster-shell powder, according to the state of the bowels, and interposing the calomel pill and rhubarb draught between whiles, when the stools are bad coloured, or remarkably foetid.

Amongst the various causes to which the rash in children may be imputed, I must not pass over the following, which, as far as I know, have not been taken notice of by any author.

The first is commonly called a surfeit,

to which the mother has imprudently exposed herself during her pregnancy, by drinking a draught of some weak liquor, such as water, milk, or small-beer, cold, while her body was over-heated. I have met with a few instances of this kind, where the rash, which appeared upon the child soon after it was born, could not be accounted for in any other way, and was uncommonly obstinate. The same indiscretion in the mother, or the wet nurse, while the child sucks, will likewise occasion a rash in the infant; as will also milk that is over-heated, or too long confined, which some of the poor labouring women, who are obliged to work hard during the time they suckle their children, sometimes inconsiderately give them. These circumstances I mention, to make mothers and wet nurses careful to avoid the above irregularities, which are not only a source of very obstinate rashes in children, but often produce sudden and very fatal effects, both upon themselves, and the children they

suckle. It will appear less strange, that a hearty draught of small liquor drank cold, when the mother or nurse is overheated, should sometimes occasion a rash in the child, if we consider, how many instances are met with of the *gutta rosacea* (*i. e.* where the face is full of little angry pustules, or carbuncles) owing to this cause, and it is very hard to be cured. One thing remarkable to be observed here, is, that when a rash happens to a child from the mother's drinking cold liquor while she was hot, during her pregnancy, or the mother or nurse committing the same imprudent action while they give suck, they have not been sensible of its having any bad effect upon themselves; so that the whole mischief seems to fall upon the infant; at least this has been the case with most of those whom I have attended where the rash was owing to this imprudence.

Another cause of the rash in children,

happens chiefly amongst the lowest class; and that is the mother's living upon coarse unwholesome victuals, and drinking gin, and other fiery, spirituous liquors, while they are with child, or give suck. As to the coarseness of their food, they are very ready to acknowledge that; but with regard to drinking of drams, few of them are ingenuous enough to confess it. Indeed I must own, that, as far as I can discover, rashes from this cause, amongst the children of the lower sort of women, are not so frequently met with, as one would naturally suspect in such a place as London.

Infants are likewise subject to a sort of rash called the *Red-Gum*, soon after they are born, which upon their catching cold, is apt to strike in, and fall upon the bowels, as I hinted before, occasioning vomitings, green stools, the watery-gripes, and convulsions. In this case, besides the method recommended in these complaints, I have seen the warm bath of singular

service; and very good effects from a blister.

I was sent for some years ago to a case of this kind. A child about six weeks old was seized with the watery-gripes from the striking in of a rash. She had been ill upwards of two days before I was called to her, and when I first saw her she seemed to be just dying. Her face was livid and contracted, her eyes fixed and glazed, and her hands clenched with convulsions. As I understood that her illness was owing to the striking in of a rash, I ordered her to be put into warm water as soon as possible, as high as the breast; the belly and limbs to be well rubbed with the hand all the while she was in the water. She had not been in above a few minutes, when a fine glow came upon the countenance, the eyes recovered their lustre, and she looked about her as if nothing had ailed her. I had her kept in the bath for a quarter of an hour, or longer; after which she was wrapt up in warm

flannel, and put to bed, where she sweated plentifully, and slept several hours. After the sweat was over, a blister was applied between her shoulders, and though the rash did not return, she very soon got well.

CHAP. X.

Of the Tinea, or Scall'd-head.

THE *tinea*, or *scall'd-head*, comes naturally in here, seeing it may properly be considered as a rash confined to the head, of the same nature with those above mentioned. Sometimes the scalp appears raw, as if a blister had been applied all over it; and sometimes it is covered with a scaly scurf. In both cases the lymphatic glands about the nape of the neck, and behind the ears, are often swelled and hard, and frequently these glandular swellings extend a considerable way down each side of the neck, putting on a scrophulous appearance. In either case, I mean whether the skin of the head be raw, or scurfy, I have found it safest to begin the cure by applying something to promote the discharge; and for this purpose I know nothing better than cabbage leaves applied fresh, night

and morning. This should be continued till the swelling of the glands disappears; and, during the whole time, these should be well rubbed night and morning with the juice of the root of red sedge (or *gladiolus luteus*), of which see a particular account in the article of the *scrophula*. Meanwhile the scall'd head must be treated according to its appearance, in the same manner as the rashes above mentioned; that is to say, if the scalp appears raw, I use the same method of cure as in the rash, where the scabs are moist; and if it is dry and scaly, I treat it in the same manner as the scurfy eruption. As this disease, unless it comes by infection, and is of short duration, is almost always attended with a foulness of the *primæ viæ*, and more or less of the hectic fever, care must be taken to clear the abdominal *viscera* in the method above explained, and strict regard must be had to the diet. As soon as the glandular swellings are all dispersed, the stomach and bowels cleansed, and the hectic fever sub-

duced, you may safely begin to dry up the discharge by degrees, and for this purpose Goulard's *eau vegeto-mineral*, before mentioned, applied warm, once or twice a day, I have found the most useful. I direct it to be applied at first only to the parts that are the most raw, and not over the whole scalp, for fear of checking the discharge too quickly; and now, instead of the cabbage leaves, an oil-skin cap must be used, to prevent the linen one from sticking to the head. If, after the part is healed, the child should be taken ill, either of a fever, convulsions, or any complaint in its lungs or belly, which may give cause to suspect that the humour has not been thoroughly discharged, a blister ought to be applied to the fore part of the head, as before directed, and the complaint treated according to the symptoms. The blister must be kept open for some time, and the above process renewed and continued till the cure is completed. In the mean time I must observe, that, out of a great number of scall'd heads which I have cured

by the means above related, I have not yet met with one instance of a relapse, nor any complaint in consequence of the cure.

When the disease is partial, *i. e.* when it only appears in blotches here and there upon the scalp, the following ointment applied, every night at bed-time, is found very efficacious.

R_x Ung. Saturn. 3 vi.
Citrin. 3 ij.

M. s. a.

I have frequently found the following lotion useful in this complaint :

R_x Kali sulphurat. 3 iii.
Saponis alb. 3 i.
Aq. calcis, 3 vij.
Spt. Vini. 3 ij.

M.

To be applied morning and evening, and suffered to dry on. Or washing the head with warm sea-water, while it is used internally as a purgative. *Ed.*

CHAP. XI.

Of the Intertrigo, or Galling.

THE *intertrigo*, or *galling*, when the skin is cracked, or chopt, may properly enough follow the article of the rash, especially when it affects the neck, or appears behind the ears. Because, when it happens between the thighs only, or about the *anus*, or on the *perinæum*, as is often the case, it may in a great measure be owing to a sharpness of the urine, either during the time of teething, or before it, if the child be feverish; or of the stools, if he has a purging, and the nurse is not careful enough in keeping him dry.

This galling is troublesome to some infants long before the time of cutting the teeth, and sometimes puts on the appearance of a mortification, especially in the groin, the neck, and behind the ears.

I have seen several instances, where the skin has been chopt two or three inches long, and the cellular membrane beneath had a sloughy appearance, the whole bearing the resemblance of an ill-conditioned ulcer. In short, in this state of the disorder, it is to be considered as a real mortification, and treated as such. And here the Peruvian bark, for the most part, acts as a specific. In general, this complaint seems owing to a sharpness of the humours, and is commonly attended with a foulness of the *primæ viæ*. Wherefore I always begin the cure with cleansing the abdominal viscera, and then I administer the bark both outwardly and inwardly. I direct the parts affected to be fomented, two or three times a day, with a decoction of the bark, as warm as the child can bear it, and afterwards dressed with an ointment made of clarified honey, and a sufficient quantity of powder of bark to give it a proper consistence. In the mean time the child is to take from a pap-spoonful, to one or two table-spoonfuls of the decoction every four,

five, or six hours, according to his age, or the urgency of the case, sweetened with some syrup of orange-peel; or, if he is costive, some solutive syrup of roses, with the addition of a proper quantity of soluble tartar, in case the syrup alone should not be sufficient to keep the body open.

The decoction I commonly use is made of one ounce of bark in gross powder, boiled slowly in a quart of soft water, till it comes to a pint. To an infant, only a fortnight old, which had a bad *intertrigo* behind the right ear, I ordered a pap-spoonful of this decoction to be given every four hours, and she soon got well. To others, from six to twelve months ill of the same complaint, both in the neck and groin, I have directed a table-spoonful to be given at the same intervals, and with the same success; and to several others, turned of a year old, or some of them near two years, a table-spoonful and a half, or two table-spoonfuls, every five or six hours: For as

children, at this age, can bear a larger quantity at a time, than very young infants, consequently there is no occasion for repeating it so often; and thus they do not so soon tire of it.

If the child is at the breast, the nurse must be careful of her diet, abstaining from salted meats, fish, cheese, salt-butter, and every kind of food that is hard of digestion; as also from all strong fermented liquors. And if he is weaned, a particular regard must be had to his diet, allowing no animal food of whatever sort, and feeding him chiefly on sago, panado, and the like*.

* When this complaint is seated upon or behind the ears, a small quantity of the ungt. calcis. hydrarg. alb. applied by means of the point of the finger speedily removes it. I lately saw a very singular eruption take place on the ears, immediately after the operation of piercing. It gradually spread over the head, and was succeeded by blotches on various parts of the body, accompanied with hectic fever, which terminated in death. I considered this as an instance of infection

Besides the diseases treated of above, there are others, such as the SMALL-POX and MEASLES, which, as is too well known, carry off numbers of children. But since these distempers, when they happen, are more fatal to grown persons than to children or infants, they cannot properly be considered as peculiar to childhood. However, in the SMALL-POX, I have had several opportunities of trying the antimonial solution, both in children and adults; and in the beginning of the disease, where the stomach is foul, it has a remarkable good effect. But when the fever runs high, as I always make it a rule to take away some blood first; and if the body is costive, to give an opening clyster; or, which is still better, a small dose of calomel overnight, and next morning a gentle cooling purge.

communicated by a foul instrument used in the operation of piercing, and should be a caution to parents to whom they confide the performance of even this apparently trifling business. *Ed.*

I have not had occasion to try that medicine in the MEASLES, most of my patients in that distemper having had so favourable a sort, that they readily got well in the common method of treating it.

The two last-mentioned diseases, *viz.* the small-pox and measles, being infectious, and requiring attendance at home, are excepted from the charity instituted for the relief of the Infant Poor; so that I have not had so frequent opportunities of making observations upon them, as on most of the other diseases incident to children. And as this treatise upon the diseases of children is the result of my own experience, and not a collection from other authors, it does not belong to my plan, to make any particular remarks on the above-mentioned diseases. But there are numbers of children brought to the Dispensary, labouring under complaints, which either originate, or at least take their date, from these diseases, especially the measles.

The most frequent of these complaints is the hectic fever, treated of in the article of teething; but in this case, I mean when it derives its origin from the measles, it is almost always attended with a troublesome cough, often violent, and generally obstinate. To the directions already given for the cure of that fever, I have only here to add, that if the cough is dry and tickling, and the tongue white, as in an inflammatory fever, though the pulse should neither be very full nor quick, there is nothing I know so effectual as taking away a little blood, and, if it be sizy, repeating this evacuation from time to time, till the cough and fever subside*. After bleeding, if the cough still continues troublesome, a perpetual blister on

* During the eruptive state of the measles, I have seen the very best effects produced by confining the little patients to linseed tea as the sole beverage, supposing the bowels to have been duly evacuated previous to the eruption. In the tickling cough that follows, the camphorated mixture, with a little syrup of poppies, answers very well. *Ed.*

the nape of the neck, or between the shoulders, is frequently of use, both to abate the cough, and correct the siziness of the blood.

CHAP. XII.

Of the Ophthalmia.

MUCH the same method must be observed in treating the *ophthalmia*, which often happens to children both after the small-pox and measles; especially the former. But here the *pediluvium* (or bathing the legs in warm water), every night at bedtime, must be added to other helps. The child's legs, quite up to the knees, must be put into water, agreeably warm, for a quarter of an hour, or more; after which, they should be well rubbed dry, and the child put to bed directly. The eyes must frequently be washed with the *aqua verbenæ*, which is made for the use of the Dispensary, as follows:

Aqua Verbenæ.

℞ Herb. verben. recent. ℥ xxiv.

Aq. pur. q. s. ad evitandum empyreuma.

Distillatione eliceantur congii tres.

This is an excellent eye-water for the *ophthalmia* in children, especially such as are of a scrophulous habit of body. But if, after having used it for some time, the eyes still continue weak and tender, I make use of the following every night at bed-time, or oftener, if the child can bear it:

Aqua Ophthalmica.

R Vitriol. alb. $\frac{3}{4}$ ss.

Aq. pur. lib. j.

Coque ad solutionem, et filtra.

If this eye-water is found to be too sharp at first, it may be diluted with an equal quantity of the *aqua verbenæ*, or of common spring water, if the other is not at hand. It must only be used when the eye is moist or watery. When it is dry, the vervain-water is by far preferable.

But what I have found of the greatest service in this case, is a blister applied to the fore part of the head, and kept open by means of the *unguentum ad vesicatoria mitius*, described page 92.

CHAP. XIII.

Of the Lippitudo, or Bleared Eye.

THE *lippitudo*, or blearedness of the eyes, happens frequently after the small-pox; and many children, labouring under this complaint, have been brought to the Dispensary. This is more properly a disease of the eye-lids, than of the eye itself, proceeding from a kind of excoriation of the *cilia*, or a number of very small ulcers, at the roots of the eye-lashes, especially of the lower eye-lid, which is thereby deprived of most of its hairs, and a purulent discharge glues up the eye-lids, chiefly during the night.

If the child is feverish at night, the case must be treated in the same manner as the *ophthalmia* attended with the hectic fever,

and the eyes must be washed several times a day with the *aqua verbenæ*. But if this should not answer, recourse must be had to the *aqua ophthalmica*, and that failing, the following ointment must be tried :

Unguentum Ophthalmicum Saturninum.

℞ Extract. Saturn.
Ceræ albæ, ā ā ℥ ij.
Ol. olivar. ℥ ij.
M. f. *Unguentum*.

A little of this must be rubbed upon the *cilia*, or margins of the eye-lids, night and morning, but especially at bed-time. Whether he is feverish or not, he should take a proper dose of calomel over night, and a draught with rhubarb and soluble tartar, or the like, next morning, once a week at least, and his diet must be very light, carefully avoiding every thing that is hard of digestion. When the eye-lashes are glued together in a morning, I do not know any

thing that disentangles them so soon as a little fresh cream applied to them*.

* In inflammation of the eye-lids, the unguent. hydrarg. nitrat. diluted with twice the quantity of ungt. ceræ. Or

Ungt. resinæ, seven parts carefully mixed with one part of finely levigated acetate of copper, answer particularly well. *Ed.*

CHAP. XIV.

Of the Leucoma, or Speck on the Eye.

THE *leucoma*, or *speck* on the *eye*, happens chiefly after the small-pox, and is sometimes owing to the officiousness of the mother or nurse, in endeavouring to open the eyes, blinded by the disease, too soon, in order to gratify the child's impatient desire to see the light, whereby he is sometimes rendered incapable of ever seeing again. This complaint, if recent, is most successfully treated by bleeding, repeated purges, the *pediluvium*, and the *aqua verbenæ*, or *ophthalmica*, if the other does not answer, the same as in the *ophthalmia*; and the regimen with regard to diet must likewise be the same. A speedy cure is not to be expected here; wherefore the above method must be persevered in a long while: and thus I have cured several where the disease was recent. But when I have met

with it of long standing, I have seldom attempted to cure it, having seen a few instances, where a variety of applications, some whereof were very painful, have been tried to no purpose, and the parents have lost both their temper and patience, as well as the little patient himself*.

* Where the speck consists of an excrescence from the external surface of the cornea, it may often be removed by the application of finely powdered sugar; or, what answers much better, a solution of the *argentum nitratum*, or lunar caustic, of a proper strength, applied by means of a camel's-hair pencil; but where the disease is produced by an extravasation between the laminæ of the cornea, it is perhaps incurable. It requires a practiced eye to distinguish the different kinds of this complaint. *Ed.*

CHAP. XV.

Of a Beginning Cataract.

BY persisting in the same method as that above recommended in the cure of the *ophthalmia* and recent *leucoma*; that is, by bleeding at first, gentle mercurial purges, the *pediluvium*, and a strict regimen as to diet (only omitting the outward applications to the eye, when it was not inflamed, or too tender), I have had the happiness of curing a few beginning cataracts. But, where that disease was confirmed, I have not meddled with it; and I do not here mention it as a complaint that happens in consequence of the small-pox (for as far as I have had occasion to observe, it seems often to be hereditary), but as a disease peculiar to the eye, and therefore proper to be mentioned in this place.

CHAP. XVI.

Of Tumours coming after the Small-Pox.

TUMOURS of various kinds likewise come after the small-pox, and I have some reason to believe, that they are not so much owing to a *dreg* left after that disease, according to the vulgar opinion, as to improper diet and neglect of proper purging after the disease is over. For, the child being weakened and emaciated by the small pox, some parents, in order to recover his strength and flesh, have immediate recourse to light, animal food; such as chicken, rabbit, veal, and such like; which, from the concocting powers being weakened, instead of strengthening and nourishing him, bring on the hectic fever, as has been already explained, and often, along with that, the swellings just now mentioned. Some of them are of the inflammatory kind, and on their first attack, for the most part, yield to the an-

tiphlogistic method, *viz.* bleeding, cooling purges, discutient poultices, and a light vegetable diet. But, if not dispersed in time, they must be brought to a suppuration, by means of proper cataplasms, and, after the matter has been discharged, cured in the usual way.

Others again are more of a scrophulous nature, being hard and indolent, and chiefly affecting the glands, especially those about the neck, and under the *axillæ*, or arm-pits. These tumours are to be treated in the same manner as the scrophulous ones; of which a particular account will be given when treating on that disease.

CHAP. XVII.

Of the Chin-cough, or Hooping-cough.

THIS is one, amongst several of the diseases of children, falsely supposed by the vulgar, and even by numbers of persons in a superior station, to be out of the power of physic, and therefore to be solely left to time and nature to cure. From this fatal mistake, many a child has suffered death in the *hooping-cough*, whose life, with proper care, might easily have been saved. Another circumstance, which has retarded the progress that otherwise might have been made in curing this disease, is, the ill-founded and unlimited faith which too many people put in useless specifics, superstitiously handed down from age to age, as infallible remedies for the *chin-cough*, and thereby neglecting a more judicious, rational, and successful method of treating it.

In the first edition of my little Treatise on the Diseases most fatal to Infants, published in the year 1767, I mention my having tried the antimonial solution in the chin-cough with very good effect, and from the experience which I had had of it, I said I had reason to believe, that, if timely exhibited, it frequently would prevent that obstinate complaint from arising at such a height, or continuing so long as it commonly does. Since that I have the pleasure of finding, that it is become a common practice to give an antimonial puke frequently in the above disease, not only to discharge the phlegm which exasperates the cough, but to abate the fever, when there is any, for which emetics of that class are very justly celebrated. But though the above-mentioned pukes, judiciously administered, are of great service in relieving this excruciating disease; yet we must not trust to them alone for the cure of it; nor has any specific, as far as I know, hitherto been discovered that is capable of subduing it.

From the time of the first institution of the Dispensary for the Infant Poor, which was in April 24, 1769, till the beginning of June 1777, I had seven hundred and thirty-two poor children, ill of the whooping-cough, under my care; out of which number have died twenty-five*.

For the first three years and a half, I commonly used the method just now mentioned, which succeeded very well, having, out of one hundred and ninety-six patients, lost only four.

In the beginning of the year 1772, Dr. Butter first published his treatise on the Kink-cough, wherein he recommends the extract of hemlock as a specific in this disease. As he writes from experience,

* When I say, out of which number have died twenty-five, I would have it understood, that this is the whole number who have died of this complaint, that has come to my knowledge. But of this more when I come to the general account of the Dispensary for the Infant Poor.

and publishes a number of cases wherein it had succeeded better than the common remedies, I was willing to try it; and though, upon trial, I have not found it so effectual a remedy as the Doctor represents it, yet in many cases it seemed to shorten the disease; and when I have inquired of the parents how it agreed with the children, the answer has almost constantly been, Very well. But, as a further proof of its being of service in this complaint, many instances have occurred, where, from the negligence of the parents, or their living at a great distance, the medicine has been exhausted for a few days, and during that time the cough was more violent; but, on having a fresh supply, it soon subsided. Out of three hundred and fifty-seven children in the whooping-cough that were treated with the extract of hemlock, seventeen died; but of these I reckon nine were very unfavourable cases. One of them, for example, a child nine months old, had been subject to convulsions from the birth, and went off in one at last. Another, aged seven months was wasted to

a skeleton with the cough and a hectic fever, which he had laboured under for two months before the parents applied to the Dispensary. A third, two years and a half old, had been subject to a hectic fever, with a hard swelling of the abdomen, for twelve months before he was taken ill of the whooping-cough. A fourth, of the same age, had never been a thriving child, having been liable from his birth to scabby eruptions, a great weakness of his limbs, a hectic fever, and a phthisical cough. A fifth, aged seven weeks, had been ill of convulsions, besides the whooping-cough for three weeks, before application was made to the Dispensary. A sixth, two years old, vomited blood several times, and at last died suddenly. A seventh, of the same age, had a spitting of blood during the whole of the disease. The eighth, aged one year and ten months, and the ninth, only six months, went off suddenly in a fit which now and then happens to children without any visible previous complaint.

I have commonly given this medicine in the following form :

R Extract. e cicut. gr. xv.

Aq. pur.

—Menth. piperit. simp. āā ℥iv.

Sacchar. alb. q. s. ad gratum saporem:

M.

Of this mixture I direct a pap-spoonful to be given every four hours to a child six months old, increasing the dose by degrees to a table-spoonful, if it occasions no sickness nor disorder in the bowels, which it very seldom does, if given in this manner. To a child of a year old, I give three large tea-spoonfuls at first, and increase the quantity gradually to a table-spoonful and a half. If the child is two years old, I begin with a table-spoonful, and proceed by degrees to double the quantity at a time; and so on, in proportion to the age and strength of the child.

As soon as the fever attending this cough at first, was considerably abated, and after

it came to intermit, I for some time had recourse to another method, of which I next proceed to give an account.

About two years after the publication of Dr. Butter's book, that is, early in the year 1774, Dr. John Coakley Lettsom, Physician to the General Dispensary in London, published his Medical Memoirs of that Dispensary, wherein, amongst several other diseases, he treats of the whooping-cough, and rejects Dr. Butter's method, without ever having tried it, as he himself owns. The medicine which he recommends, is composed of tincture, or decoction, of the bark, the sudorific elixir of the General Dispensary, and the tincture of *cantharides**. The sudorific elixir is much

* This method of curing the whooping-cough is borrowed, as Dr. Lettsom says, from Mr. Abraham Sutcliff, a surgeon-apothecary at Settle in Yorkshire, and is an improvement on Dr. Burton's medicine for curing this disease, mentioned in his Essay on the Chin-cough, at the end of his treatise on the Non-naturals, published in the year 1738.

of the same nature with the *elixir paregoricum* of the London Dispensary: there only is a double quantity of opium and oil of aniseed in it, besides the addition of a certain quantity of ipecacuan, balsam of Tolu, and saffron. The composition is as follows:

℞ Rad. Ipecac.
 Balsam. Tolutan. ana semi-unciam.
 Flor. Benzoin.
 Opii colat.
 Croci, ana drachmas duas,
 Campher. scrupulos quatuor,
 Ol. anis. essent. drachmam,
 Spir. vin. rect. libras duas: digere et cola.
 Elixir. semi-uncia habet opii grana duo.

To a boy of four years and a half the Doctor orders thus:

℞ Tinct. Peruv. spirit. ℥i.
 Elixir. sudorif. 3ij.
 Tinct. cantharid. ʒij.
 M. Cap. 3ij. ter die.

Case V. p. 274.

To another, aged three years, he prescribes the following mixture :

℞ Decoct. cort. Peruv. ℥ vi.

Elixir. sudorif. ℥ iij.

Tinct. cantharid. ℥ j.

M. Cap. semi-unciam ter die.

Case XV. p. 292.

I have quoted these two cases only by way of general direction to those who have not read the Doctor's book, showing in what proportion and quantity the tincture, or decoction of the bark, joined with the other medicines, are administered. I have tried this remedy with one hundred and eighty-eight children, some of which are now under cure; and though I take it to be a better medicine than the *cicuta* for this disease, after the fever, which commonly attends it at first, remits, or intermits, yet in many cases it does not effect a cure so soon as I could wish, and indeed expected, from the very favourable account given of it by Dr. Lettsom.

But in both these methods, *viz.* Dr. Butter's and Dr. Lettsom's, I still find it proper to use the antimonial solution, in order to shorten the cure, by carrying off the phlegm, and abating the fever. I commonly advise it to be given once a-day, about five in the afternoon, in a sufficient quantity to operate two or three times. I prefer that time of the day to the morning, or forenoon, because the stomach, being less empty, bears the medicine better, and the phlegm being puked up immediately before the child's natural time of going to rest, it sleeps the better for it; which has a good effect, both upon the fever, when there is any, and the cough. Here likewise the anodyne quality of this medicine, taken notice of before, page 86, is undoubtedly of service.

I had, some years ago, an opportunity of trying both the antimonial solution by way of puke, and vomits compounded of the ipecacuan wine, and oxymel of squills, in a boy about eight years old, who was ill of

the whooping-cough; and it plainly appeared to every body about him, that though the latter cleansed his stomach very well of the phlegm, yet it had not so good an effect upon the cough as the former, neither did he perspire so plentifully after it. Both kinds were repeated several times, and the event was always in favour of the antimonial vomit.

The solution of tartar emetic I have used in the whooping-cough, for upwards of eighteen years, with very good success; and finding it so serviceable, I mentioned it in the first edition of the *Essay on the Diseases most fatal to Infants*, since which time it is come into pretty general use*.

The method I have lately adopted for

* When the violence of the cough is over, it will be sufficient to give the medicine once or twice a week, according as the phlegm gathers, less or more, which can easily be judged of, not only by the quantity thrown up during the coughing, but likewise by its rattling in the throat between the paroxysms.

curing this disease is as follows: If the fever is high, when I am first called, and the child of a sanguine habit, I advise bleeding; and if the patient is costive, I direct a cooling clyster to be administered, and the body to be kept open with some gentle purgative, *viz.* a small dose of marna, magnesia, rhubarb, or calomel, given occasionally. Till the fever abates, or remits, or intermits, I give the *extractum cicutæ*, according to Dr. Butter's directions; and as soon as I find a plain remission, or intermission of the fever, I have recourse to the tincture, or decoction of the bark, the *elixir paregoricum*, in a double quantity to that of the sudorific elixir ordered by Dr. Lettsom, and the tincture of *cantharides*; and this I continue till the end of the disease—taking care, all the while, to keep the body moderately open; and if the phlegm is troublesome, or the patient feverish in the night, I give the antimonial solution in the evening, as before mentioned. If the child is turned of six or seven months, and troubled with

worms, or has a great foulness of the intestines, I prefer calomel, by way of laxative, to any other medicine, giving it over night in a sufficient quantity to procure two or three stools next day.

During the whole cure, I pay the strictest regard to the diet, forbidding the use of any kind of meat, or fish, nay even of broth, while the child is feverish at nights. I chiefly allow sago and panado to children at the breast, or while they are very young. To such as are a little grown up, about two years old and upwards, besides the above mentioned, bread pudding, apple-pudding, or dumpling, during the season, stale French-roll with honey, currant-jelly, or raspberry-jam, apples, boiled, roasted, or baked; but no pye-crust of any sort, nor any jelly of meat or hartshorn. Turnips, if they are good, well boiled, and mashed with milk instead of butter, and likewise potatoes dressed in the same manner. But the mealy sort is the best, and they ought to be carefully picked and

tasted before they are mashed ; because it is no unusual thing here to meet with potatoes that look very well ; but, when you come to taste them, they have a most disagreeable flavour, and are very unwholesome. These, I imagine, are raised in the garden-grounds about town, and contract that rankness from the too great quantity of dung with which the soil is corrupted, and rendered incapable of producing either potatoes or turnips in perfection. Both these roots grow best in a light, sandy soil, and new ground, with little or no dung ; and every body knows, that the turnips, brought to market here, are not fit for the table till the field ones come in. In the same manner the potatoes, that are sent to market from different parts of the country where the soil is less manured, must be the most sweet and wholesome. Bread and milk I have no objection to, when there is not much fever, if the child is fond of it, and it used to agree with him when in health. But to make it digest the more

easily, a little almond soap* should be dissolved in it, viz. the bigness of a filberd to half a pint of milk, as before recommended, page 87, adding to it a sufficient quantity of sugar, to take off the disagreeable taste of the soap. For drink, infusion of malt, or of apples in the season, barley-water, balm-tea, hyssop-tea, or that of horehound, if you can persuade them to take it. But it is not sufficient to give proper attention to the quality of the food; the quantity likewise should be carefully regarded; that is to say, the child must never be allowed to feed too heartily at a time. There is nothing more hurtful in a cough of any kind, than filling the stomach too much at once, but especially in the whooping-cough. A fatal instance of this happened a few years ago, to a child

* This is the *sapo amygdalinus* of the London Dispensary, which being made with the oil of sweet almonds, instead of that of olives, has not that rancid, disagreeable taste, which is peculiar to almost every other kind of soap.

near two years old, which I attended in that disease. The cough had been better for some days, and was apparently going off, when the parents one Sunday fed it too heartily with bread-pudding, which they had boiled for their own dinner, and which, from its lightness, they thought could not do the child any harm; but unfortunately it was thereby immediately thrown into convulsions, of which it died the next morning. A gentle puke was given, which operated very well; but it was so weakened by the violence of the fits, that nothing administered gave any sensible relief. I must however observe, that she was naturally a very tender, delicate child, but never had been subject to convulsions before.

But, after all, in some children the whooping-cough is a tedious and obstinate complaint; and even the change of air, so much celebrated in this disease, though in some patients it seems to have a remark-

able good effect, yet to others it affords no sensible relief*.

* The following was the favourite remedy of Dr. Fothergill in the whooping-cough :

R Pulv. chelar. canor. 3 ss.
Antimon. tart. gr. ij.
Accuratè misceantur.

Two grains of this are to be added to five of any testaceous powder, and given in a little milk and water between breakfast and dinner. If that quantity does not produce vomiting, it is to be increased daily till that effect takes place. Notwithstanding every medicine, this complaint will generally run through a course of a month or six weeks. The violence of the disease may be indeed alleviated by proper treatment, but I doubt whether its duration can be shortened. Hence the high reputation of various specifics in this complaint. The anxiety of parents renders them desirous of relieving their children from this distressing complaint. They give them every thing that is recommended; and whatever happens to be administered about the period of the natural cessation of the disease, obtains the credit of having cured it. *Ed.*

CHAP. XVIII.

Of the Rickets.

THE RICKETS makes its first appearance in childhood; and the effects of it often continue through life. Though it lays the foundation of various complaints and deformities, yet not many die of it; but, as I have daily opportunities of seeing rickety cases amongst the poor children that are brought to the Dispensary, the following remarks on that disease, will, I hope, be found useful. And, in the first place, I must observe, that almost all the rickety children, when they are first brought to receive the benefit of the charity, have the hectic fever described at page 104, and have had it for some time, which has alarmed the parents, and been the chief cause of their applying for relief. This fever, which in these tender subjects is almost always owing to a foulness of the stomach and in-

testines, proceeding from a bad digestion, occasioned by a weakness of these organs, may either be the cause or the effect of the rickets, according to certain circumstances. Thus, for example, if a child is born of ricketty parents, or from a damp situation, or any other similar cause, has its fibres relaxed, and consequently its bones disposed to be preternaturally soft; I say, if in such circumstances, either from the pain occasioned by teething, the child's rest is disturbed, or by improper diet, a foulness of the abdominal *viscera* is brought on, the above-mentioned fever will be produced; which, by weakening the child still more, will bring on the rickets, especially when there is a tendency in the habit that way. On the other hand, if the rickets is already produced, by weakening the whole habit of body, and consequently the *viscera*, it exposes the child to the same fever, from the incidents just now mentioned. But whichsoever is the case, the fever is the same, and consequently the cure ought to be the same likewise: *Vid.* page 107. After

the fever is cured, what remains to be done, is to strengthen the habit, which is chiefly to be effected by proper diet, and the cold-bath. But here I must observe, that the cold-bath ought to be the last thing that is ordered; for, being of a very strengthening nature, and sudden in its effects, it should never be entered upon, till the patient is properly prepared for it; I mean, till the first passages have been thoroughly cleansed, the stools become natural, and the hectic fever entirely, or at least nearly, gone. At first, the child must be bathed only once in two or three mornings; and great attention must be paid to the manner of its agreeing with him. For if he glows when it is over, and seems in good spirits through the day, you may be sure that it agrees; and, after having continued it every other morning, or so, for ten days, or a fortnight, it may be repeated every day, as long as you find it necessary. But, on the contrary, if you observe him to be chilly after being dipped, or drooping and low-spirited, it must not be repeated; these

being certain signs that it is not proper for him; and I have known mischief done by continuing it under these circumstances, in hopes that use might render it beneficial. During the whole time that the cold-bath is continued, the body must be kept moderately open; and if at any time the child is costive, or his stools very foetid, or he becomes feverish at nights, the bathing must be discontinued, and a little proper physic given, or whatever else may be necessary to remove these obstacles. But some children are so much afraid of the cold-bath, that it is not safe to venture it, for fear of throwing them into fits. In such cases, instead of the above remedy, the cure may be finished with a light decoction, or infusion of the bark, given to the quantity of one, two, three, or more spoonfuls, mixed with a little syrup of orange-peel, or the like, to make it the more palatable, two or three times a day, using the same attention in observing its effects, as was mentioned with regard to the cold-bath. That is to say, if the

child is cheerful and lively, and his appetite good, it must be continued till the strength is quite restored; but if, on the contrary, he is dull and heavy, and his appetite declines, it will be proper to leave it off. If it makes him costive, a sufficient quantity of rhubarb should be added to it, or of soluble tartar, or solutive syrup of roses. Care must likewise be taken in administering this remedy, not to have recourse to it too soon, till the stomach and intestines have been thoroughly cleansed, and the stools become natural, both as to colour and smell; and if there should be any return of fever during its use, to leave it off. But this will scarce happen except upon catching cold, or from a return of the foulness of the bowels, in which case I have known the bark do a great deal of harm, especially when the body was costive at the time of using it. It may seem a paradox to some who are fond of giving the bark in almost all remitting or intermitting fevers, when I say, that this me-

dicine is seldom necessary in the cure of the hectic fever above mentioned, but, on the contrary, is sometimes hurtful. This fever, as I have elsewhere hinted, is one of the most frequent complaints to which children are subject, and I have cured great numbers of them without a single grain of the bark; nay, I have known several instances where that specific has done mischief, by being administered before the body was properly prepared for it. But to proceed; as there are some children so much afraid of the cold-bath, that it is not safe to compel them to it; so there are others whom you cannot prevail upon to take the bark. With these it will be proper to finish the cure with chalybeats, of which the *vinum chalybeatum* is in general as good as any, and as easily taken. I begin with giving ten, fifteen, or twenty drops, according to the child's age, twice a day, *viz.* at noon, and five in the afternoon, and increase the dose gradually to thirty, forty, fifty, or more; taking care in the mean

time that the body is kept soluble; and in case any feverish heat arises at any time during its use, to leave it off till that is gone. I must however observe, that after the hectic fever attending the rickets is perfectly cured, the child, for the most part, will gather strength, without the help of corroborating medicines, provided the diet before recommended, page 109, be strictly adhered to, the child kept in a dry air, laid in an airy room, and on a hard mattrass, instead of a feather-bed. He should likewise be well rubbed all over, two or three times a day, or at least night and morning. Indeed, if this last injunction were carefully observed by mothers and nurses, from the time the infant is born till he comes to be two years old, or upwards, and proper attention paid to the diet, and such exercise as the child is able to bear, it would contribute more to prevent the disease in question, than any thing I know. For upon examining, as narrowly as possible, into the cause of this disorder, I

have generally found it to be owing, in a great measure, to careless nursing, especially in not keeping the child clean and dry, and neglecting to give him sufficient exercise*.

* Whether it arises from improved methods of nursing and management, having been adopted since medical men have paid more attention to the diseases and treatment of children, may be a point difficult to ascertain, but certainly ricketty children are much more rarely seen now, than even twenty years ago. *Ed.*

CHAP. XIX.

Of Worms.

WORMS are much more incident to children than to adults, and therefore are properly classed amongst the diseases of children. They are commonly distinguished into four different sorts, *viz.* the long round worm, called the *lumbricus teres*; the small white round worm, called the *ascaris*; the long, white, flat one, called the *tenia*, or tape worm; and the short, white flat worm, called the *cucurbitina*. A number of these last are sometimes linked together in the form of a long chain, and, by some authors, it is reckoned the same as the *tenia*.

The two first kinds, *viz.* the long round ones and the *ascarides*, are the only species which I have met with in children. The former seem chiefly to reside in the small intestines, and sometimes in the

stomach; and the latter most constantly in the *rectum*; these I have likewise found the most frequent.

Worms seldom appear in infants before they are weaned, though, among the great numbers of children that are brought to the Dispensary, I have met with several instances of very young infants at the breast, who have voided quantities of the *ascarides*, even while the breast-milk was their only sustenance. But, upon inquiry, I have always found, that the mothers, and sometimes both the parents of such children, had been subject to the same kind of worm from their infancy.

Though worms by many people, even in the physical line, are reckoned one of the principal sources of children's complaints, yet I cannot help thinking, that worm cases more rarely occur than is commonly imagined; for, I am very well assured, that the common symptoms of worms, such as picking the nose, grinding

the teeth in the sleep, starting and calling out while asleep, sleeping with the eyes half open, a wan complexion, a stinking breath, pains in the stomach and bowels, a want of appetite; or, on the contrary, a perpetual craving for food, a depraved appetite, &c., I say, I am well assured, that all these symptoms are frequently produced from a foulness of the *primæ viæ* when there are no worms in the case. I have good reason to say so, because I have had numbers of children with the above symptoms under my care, who, by the use of proper medicines for cleansing the bowels, have got rid of them all, without ever having been observed to void one single worm; though, while their purging medicines were operating, the stools were carefully inspected. Nay, I may venture to say, that of the whole number of children brought to the Dispensary, who, from the apparent symptoms, are supposed to be troubled with worms, there is not one in ten that has ever voided any, nor do any

make their appearance during the whole time of the cure.

Several years ago, I was sent for to a boy, between five and six years of age, who was ill of a worm-fever, as his parents suspected. He lay very stupid, his pulse was low and quick, the tongue very foul, his breath foetid; he had no sound sleep, but slumbered frequently, with his eyes half shut; he grinded his teeth often, had inward fits, and was sometimes threatened with convulsions. His urine was of a dusky yellowish colour, but without any sediment. His belly felt very hot; his stools were rather costive, of a dark greenish cast, a clayey consistence, and very offensive to the smell. He had been ill about a fortnight before I saw him, and was so low and weak that he could not well bear evacuations. However, he had several clysters with aloes, and now and then a pill with a few grains of calomel. He lived near a fortnight after I was called to him, and during that time he voided three

worms. The first, which came away near three weeks after he was first taken ill, was five inches long, of a pale red colour, and very much resembled a common earth-worm. The other two, which were voided about two days after the first, were between two and three inches long, but very slender, and of a pale whitish cast. These seemed to be produced from the other; and from their coming away, hopes were conceived, that by pursuing the same method, more worms might be expelled, and the child cured. But these hopes were fallacious, for he lived not many days after. I prevailed upon the parents to let the child be opened; and after examining the stomach and the whole intestinal canal, with the greatest care possible, I could not discover the least appearance of a worm of any kind; but the large intestines contained a great quantity of a thick, viscid, clayey, greenish excrement, very fœtid, of the same sort with that which he voided by stool*. And this,

* I have met with several instances of the same kind since.—*N. B.* The parents of this child lived in a

I imagine, was the chief cause of all his illness; for the bowels themselves seemed to be in a sound condition.

However, as it is impossible to be certain that children have not worms, when the symptoms strongly indicate them, though they are not voided, it is certainly right to try whether they have or not; and as a foulness of the stomach and intestines frequently occasions the same symptoms in children as worms do, it seems reasonable to expect, that the same sort of remedies should be of service in both cases; as indeed they are. Wherefore, if a child with the above-mentioned symptoms is costive, I give a dose of calomel at bed-time, from half a grain to three or four, more or less, according to the age and strength of the little patient, and a gentle purging draught or powder

stable-yard, the air of which is remarkably pernicious to children, and particularly apt to occasion this kind of fever, as I have had but too frequent opportunities of observing.

next morning; repeating them at proper intervals. By this simple method alone, I have recovered in a very short time a great many children, who have been thought to be troubled with worms, without one having been observed to come away in their stools; and others have voided a great many, and got well apace. But if he is not costive, and is sick, or oppressed at his stomach, I commonly order an antimonial puke, which generally operates both ways, when the stomach and bowels are foul; and I have met with a few instances where a vomit of this kind has forced away worms by stool, after repeated purges had been given in vain.

There are many medicines recommended for worms by different authors; but most of them, such as aloes, extract of wormwood, *sagapenum*, *opopanax*, wormseed, &c., are so bitter, that it is almost impossible to make children swallow them. Besides, many of them are too heating to be given with safety to those tender subjects. I must

however, observe, that aloes dissolved in milk (two scruples, for example, to a gill, for a child of two years old), and given by way of clyster, is a very good medicine to bring away the *ascarides**.

* There is little doubt that the great reputation many worm medicines have attained, arises merely from their clearing the bowels whether worms be expelled by them or not. Foul and loaded bowels are a great source of the diseases of childhood, and whatever evacuates their contents tends to improve health in general. *Ed.*

CHAP. XX.

Of the Scrophula, or King's Evil.

THE last disease I have to take notice of here, is the SCROPHULA, or KING'S EVIL; which, I believe, for the most part, begins first to appear in childhood, but not always. Like the rickets, it sometimes proves a source of bad health through life, but is not very often fatal to children. It is generally supposed that the *pancreas* and mesentric glands are commonly the first affected in this distemper; whence proceed indigestion and pains of the belly, attended with a swelling and hardness, before the disease makes its appearance outwardly. Hence, whatever is of service to cleanse the *primæ viæ*, must be beneficial here, especially in the beginning; and to answer this intention, the antimonial solution, before recommended, is, in many cases, of the greatest service.

Amongst the great number of children brought to the Dispensary, it is natural to imagine that many scrophulous cases must necessarily occur; and, though I cannot boast of having performed any very remarkable cures in that disease, yet the following method, which I have commonly used, has, in many children, where the complaint was not of very long standing, had a sensible good effect. And in the first place, if the child is feverish at nights, and the body not costive, I give an antimonial puke in the evening, and repeat it once a week, or ten days, and the antihectic powder every morning, or every other morning, according as it operates, till the bowels are thoroughly cleansed, and the fever is quite gone; and these medicines are repeated upon every return of the fever, or the foulness of the bowels. But if the child is of a costive habit, feverish in the night, and the stools very offensive, I give a calomel pill at bed-time, and a rhubarb draught next morning, repeating the same once in five or six days, and the antihectic

powder of those mornings that he does not take the purge, in the same manner as is above directed. In the mean time, the diet must be strictly attended to; avoiding all salt meat, fat meat, most kinds of fish, cheese, or much butter. If the child is turned of three years, if he has no fever, and his stools are not remarkably offensive, he is allowed a small quantity of white meat, as chicken, rabbit, or veal, if the parents can afford it; or a bit of lobster, maid, sole, flounder, or whiting, with very little or no butter, once a day, that is at dinner; but, at the same time, there must be a mixture of vegetables in his food, such as asparagus in the season, spinnage, lettuce, turnips, carrots, peas, French-beans, potatoes, greens, apples boiled, roasted, or baked, and the like; but no pye-crust. Bread-pudding, rice-pudding, apple-pudding, or dumpling well boiled, make an agreeable variety, and are very wholesome; but no suet pudding of any kind is allowed. For drink, good small-beer, bar-

ley-water, wine and water, toast and water, whichsoever agrees the best, or is most grateful to the child's palate: moderate exercise is enjoined, and he must be exposed as little as possible to damps or wet. The tongue must be frequently examined in the morning, and if it is then white, or foul, he must abstain from animal food till that appearance is gone; and if he is sick at his stomach, or feverish, his body being at the same time open, a puke should be administered; or, if he is constive, a purge, the same as recommended above.

In most scrophulous cases; I had almost said all, one, or more, of the parotid maxillary, or sublingual glands, are swelled; likewise the lymphatic glands, about the neck, and under the *axillæ*. These swellings at first are hard and indolent, of the same colour with the rest of the skin, and very obstinate. After continuing for a long while, some of them gradually in-

flame, the skin at the top changes to a pale red, which grows deeper by degrees, and at last there comes on a partial suppuration; but instead of good pus, there is formed a glairy kind of matter, which for the most part must be discharged by incision; and in spite of all the surgeon's skill, an unkindly ulcer is formed, which is very troublesome and difficult to cure, and at last leaves an unseemly cicatrix behind it. For swellings of this kind, when taken in time, that is, before the skin begins to be discoloured, the best application that I have tried, is the juice of the root of sword-grass, or the yellow water-flag (*gladiolus luteus*), rubbed well in upon the part, two or three times a-day. A small quantity of this juice, recently expressed, and snuffed up the nostrils, in a short time after occasions a great heat in the cavities of the nose, mouth, and throat, and a very plentiful discharge of saliva from the mouth, and mucus from the nose, as great of the former as if the patient were in the height of a

salivation, which continues sometimes for two or three hours, or more; and I have heard of some very obstinate chronical and periodical toothachs and headachs having been removed by this discharge, after a variety of other remedies had been tried in vain. This effect of that juice on the salivary glands, when snuffed up the nose, first induced me to try it externally, upon scrophulous swellings, and I have had the pleasure of observing it to answer extremely well, even upon some tumours of a long standing. It has occurred to me sometimes to try it inwardly, as an alterative, upon some scrophulous patients, but I have not yet done it. I must not forget to mention, that the larger and older the root is from which the juice is expressed, and the deeper its colour, the stronger and more efficacious is the medicine.

This disease is frequently attended with an *ophthalmia*, which is apt to be very troublesome, and difficult to cure. Be-

sides the general method above recommended, the *pediluvium* is sometimes of use here, as also setons and issues. The *aqua verbenæ* is likewise of great service as a *collyrium* *. ✕

* I have known some scrophulous symptoms greatly benefited by taking a table-spoonful of the recently-expressed juice of the water parsnip (*sium nodiflorum*) mixed with an equal quantity of milk three times a day.

Sea air and sea bathing are of great use in all scrophulous complaints. The utility of these remedies has of late been attempted to be invalidated by the assertion that a great many scrophulous children are to be found in the vicinity of the sea. Wherever children reside in a moist air, and live on watery, or indigestible food, scrophula will be found to prevail. It is in fact the change that is beneficial. Were these children removed to a dry and inland part of the country, and nourished with proper food, their scrophulous symptoms would disappear. For a similar reason the offspring of the inhabitants of large towns are benefited by a transition to the air of the sea. But I have treated at considerable length the subject of scrophula elsewhere. (See Observations on Sea-bathing, printed for Cadell and Davies.) The carbonate of iron is also useful: but constant and regular exercise is the best of all remedies.

What a description of the influence of the sea on the treatment of scrophulous children. I have seen many of them cured by the sea.

RULES TO BE OBSERVED
IN THE
NURSING OF CHILDREN,
WITH A
PARTICULAR VIEW TO THOSE WHO ARE
BROUGHT UP BY HAND.

BEFORE I enter upon the article of Nursing, I think it necessary to premise, that too great care cannot be taken to prevent the child's getting cold in the birth. This, I am induced to believe, is a much more frequent source of diseases and death amongst infants, especially in the lower class of people, than is generally imagined. How commonly do you hear it said, that such a one was a very fine child born, but never throve well after. Considering the sudden transition which a child makes from the mother's

womb, to the air, even of a warm room, one would wonder that any should escape getting cold in the birth, especially in cold weather, if great care is not taken to cover their tender bodies properly with something warm as soon as they are born; but every body knows, that too many of the poorer sort of women here, have but very cold, miserable apartments to be delivered in, except those who are admitted into the lying-in hospitals. This may be one principal reason, why a greater number of the children of the poor here die in their infancy, than of the rich, as I have elsewhere remarked. Sometimes, after a hard labour, the midwife and other assistants are so much occupied about the mother, to get her put safe into bed, and give her something to recruit her languid spirits, exhausted by the pain and fatigue she has undergone, or perhaps by an over-copious discharge from the uterine vessels, that the poor infant is for a while neglected. This must chiefly happen among the lower sort of people, who have but few attendants; and it is principally amongst them,

that children suffer from catching cold immediately after they are born.

In the course of the Dispensary business, I have had a number of children brought to me, labouring under the *ophthalmia**, and some of them quite blind, owing to cold caught in the birth; and many troubled with coughs, proceeding from the same cause. The ophthalmia, for the most part, has readily yielded to a few gentle purges, when the body was costive, and the *aqua verbenæ* used by way of eye-water, which I find of great service here as a *collyrium*, as well as in most other ophthalmies, where the eyes are very tender, and will not bear sharper applications.

* It has been of late suggested, with much apparent probability, that many children are affected with ophthalmia soon after birth, from the matter of fluor albus, with which the mother may have been affected, coming in contact with the child's eyes during the birth. This shows the propriety of washing the infant's eyes with warm water as soon as possible. *Ed.*

But there are, doubtless, several other complaints incident to children in consequence of their catching cold in the birth, which are falsely attributed to other causes.

About five years ago I was called to a female infant, near four months old, which had been four days ill of the watery-gripes, attended with a fever and the thrush. By means of proper medicines the fever and purging soon abated, and the thrush was removed; but in a short time after she relapsed and died. The mother not being able to suckle the child, she was brought up by hand; and as the nurse told me that the child never had been thriving, in consequence of a cold which she had got in the birth, and the remedies exhibited the second time not having the usual effect, I was desirous of opening the body, to which the parents very readily consented. On examining the abdominal *viscera*, I found the intestines all sound, but very empty; the

liver too, and pancreas, were in very good condition, except that part of the upper convex side of the former strongly adhered to the diaphragm. But the spleen was remarkably small, and adhered close to the stomach wherever it was contiguous to it, which I suppose had stunted its growth. The stomach itself had no morbid appearance, only near that place where the upper edge of the spleen adhered to it, the coats were so thin, that it burst on being handled, though in the gentlest manner. On observing these adhesions, I inquired if the child was apt to be feverish; the nurse told me it was, and likewise remarkably fretful from the birth, though, for the most part, it fed well, and was more fleshy than could well have been expected.

Being desirous to know how it happened, that the child was so neglected when it was born; I was told, that immediately after the labour was over, the

woman who delivered the mother, hearing that the man-midwife was below, went down to speak to him, and in her hurry left the infant naked upon the foot of the bed, where it remained near half an hour before she returned. This was neglecting both the mother and child greatly; but I hope such flagrant instances of carelessness as the above, very seldom happen: and I mention this, on purpose to make others more careful of their charge on the like occasion.

Query. Do not the above-mentioned adhesions shew the parts, so affected, to have been some time or other more or less inflamed? And would not bleeding at first with the lancet, or with leeches, when the other cannot be done, bid fair to be of the greatest service after a cold caught in the birth, especially when the child is feverish?

This being premised, concerning the

care that ought to be taken to prevent the infant from getting cold at the birth, I next proceed to the rules proper to be observed in the nursing of children.

THOUGH I am no advocate for bringing children up by hand, as it is called, when they can be properly suckled; yet as some mothers, for want of health, or sufficient vigour of constitution, are not able to suckle their infants themselves, nor willing to commit them to other hands for that purpose; as there are some whose nipples are too small, or, perhaps, so ill-formed, that the child cannot lay hold of them; and some whose situation in life will not allow them to perform this duty: not to mention, besides, that there are infants who will not take the breast: I thought it might not be impertinent to offer a few directions about *dry-nursing*; for which I reckon myself the better qualified, that I have had some experience of it in my own family.

But though, as I just now observed, I do not advise dry-nursing of infants, when they can be properly suckled, yet I would not have parents to be discouraged from trying it when it becomes requisite, being firmly persuaded, that if a child is born pretty strong and healthy, it had better be brought up by hand, in the method to be afterwards explained, than suckled by an ailing nurse, or one that has not a sufficient quantity of milk. For, when I talk of a child's being properly suckled, I mean by a nurse who is healthy, sober, good-tempered, cleanly, careful, and has plenty of good milk. A wet nurse ought likewise to have pretty strong nerves; for if they are weak, the least surprise has a bad effect upon the milk; or if the child happens to be suddenly taken ill, from the fright and anxiety, the milk is sometimes quickly dried up, when, perhaps, the poor infant has the most occasion for it. For this reason, some mothers, who are very fond of their children, make but bad wet nurses, though

well enough qualified for it in other respects.

Again, though the child may keep well and thriving, the nurse may be taken ill, in which case the infant of course must suffer, and probably catches the distemper, if the disease is infectious; at least it must be suddenly weaned, perhaps when it is about teething, which may have fatal effects.

In this case you will say, another nurse must be found. But if it is the mother that suckles the child, she will be loth to part with it; and you must not be too positive with her, nor tell her the risk that she and the child run, for fear of shocking her, and thereby increasing the danger. Besides, you are not certain the child will take to another breast; for some of them begin very early to know their nurse, and will not be suckled by another, without great difficulty. Further, a good wet nurse is not always readily to be had, espe-

cially in or near great cities, where so many of them are given to drinking, and other vices; and the worst of them will fall upon means of procuring a good character from some hand or other. Hence some parents, when the mother cannot suckle the child herself, prefer the bringing it up by hand, rather than run the risk of getting a bad wet nurse. Again, if it should not be the mother, but a wet nurse that suckles the child, and is taken ill, the infant must still be weaned, and the weaning will be attended with the inconveniencies just now mentioned.

Every mother whose health and strength will permit, and who has good nipples, ought, for her own sake, to suckle her infant during the first few weeks, in order to prevent the milk-fever, and inflammations and suppurations of the breasts; the first of which is dangerous, and the two last very painful, tedious, and disagreeable. For, after the lacteal tubes have been repeatedly emptied by sucking, the milk

may be dried up with more ease and safety. Besides, the suckling may agree better with the mother than she expected; and, finding this to be the case, she may be encouraged to continue it. It is true, that women who do suckle, upon catching cold in their lying-in, or committing some trespass in diet or the like, are sometimes subject to the complaints above mentioned; but they are not near so liable to the milk-fever, at least, as those who do not.

There are two ways of feeding children who are bred up by the hand; the one is by means of a horn, and the other is with a boat or spoon. They both have their advocates; but the latter, in my humble opinion, is preferable.

The horn made use of for suckling, is a small polished cow's horn, which will hold about a gill and a half. The small end of it is perforated, and has a notch round it, to

which are fastened two small bits of parchment, shaped like the tip of the finger of a glove, and sewed together in such a manner, as that the food poured into the horn can be sucked through between the stitches. This appears to be a very simple and ingenious contrivance, and is admired by some, who look upon it as a kind of artificial nipple; and it might very well be considered as such, if we had but the breast-milk to convey through it. Or if we could discover any food of the same thinness with the milk, and as nourishing as it is, the horn might still answer. But as a discovery of this kind is not to be expected, and the food which the child sucks through this artificial nipple must be thin, in order to pass between the stitches, there requires a larger quantity of it to nourish the child, and hence its stomach and bowels are too much relaxed, whereby it is in danger of falling into the watery gripes, as was the case with two of mine, which were fed for some time in that way.

The first was suckled by her mother for seven weeks, or thereabouts; at which time the milk decreased so much, that it was found necessary to wean her. During the time that she sucked, she was fed in the night with the horn, and afterwards with it alone, till she was seven or eight months old. But though she sucked her food very well through it, yet it did not seem to satisfy her, which made her often fretful. She was frequently griped, much troubled with wind, almost always loose in her body, and made a great quantity of urine.

Afterwards, when the horn came to be left off, and she was fed with the boat, and with thicker victuals, the child became more quiet and thriving every day.

The next had been suckled four weeks, when her mother, by catching cold, was seized with a violent cough, and entirely lost her appetite; for which reasons it was

thought proper to wean the child; and she was fed with the horn, in the same manner as the other, which had the same effect, of making her much afflicted with wind, and loose in her body. At last, she was taken ill of the watery gripes, which had almost killed her. However, by changing her diet, feeding her with the boat, the use of proper medicines, and the asses' milk, she at last recovered, and became very thriving likewise.

The horn having succeeded so ill, I made no further trial of it, and the last child I had was fed with the boat. She likewise was suckled almost four weeks, when her mother was again seized with a violent cough, and as she was not willing to have a wet nurse got for the child, I determined to wean her. But, previous to that, her food was made thicker, which made her less fond of the breast; and as she fed very heartily, she never once hankered after it.

Though this was not a stronger child born than her sisters, yet she was always more healthy and thriving while an infant, and never had the least tendency to a looseness, which I cannot help ascribing, at least in part, to her having been fed in a different manner.

Having given my opinion in preferring the boat or spoon to the horn, in the feeding of children, who are brought up by the hand; I come next to mention the food which I take to be the fittest for them, and the proper times for feeding them.

With regard to the first. While the child is suckled, I think the best food is crumb of bread boiled in soft water, to the consistence of what is commonly called pap, or a thin panado. The bread should not be new baked, and, in general, I think roll is preferable to loaf bread; because the former is commonly baked with yeast only, whereas the latter is said to

have alum sometimes mixed with it. But whether it has or not, of this I am certain, that the loaf bread, in and near London, grows very soon stale, and so hard, that in a few days after it has been baked it becomes not eatable.

This pap should be sweetened with soft or Lisbon sugar, unless the child is of a lax habit of body, in which case the finest loaf sugar should be used ; and in this case too, the pap should be made with biscuit instead of roll. It should not be made sweeter than new milk ; for too much sugar both palls the appetite, and grows sour upon their stomachs*.

Before the child is weaned, the victuals should be made thicker, by which means

* The superiority of the baked flour, as mentioned at page 57, or of grit gruel strained, to any food composed of fermented bread, is very great. Children ought to be accustomed to as little sugar as possible, as it is very apt to run into the acetous fermentation. A little salt should be mixed with all their food. *Ed.*

it will become less fond of the breast, and consequently, as was mentioned above, easier to wean.

If the infant is to be bred up by hand from the birth, it ought to have new cow's milk mixed with its victuals as often as possible, and now and then some of it alone to drink. Asses' milk will be still better, when it can be conveniently had, and the parents can afford it.

If the child (whether it is suckled at first, or not) is much troubled with wind, boil a few juniper berries, bruised, or a little ginger, grated, and tied up in a rag, in its pap; and between whiles give a pap-spoonful, or so, of weak peppermint water, or sweet fennel or dill water. This will be still more proper if the child is of a loose habit of body. But, if it is costive, it must be kept open with a little manna, or magnesia, mixed with its food from time to time, as occasion requires.

After it is weaned, especially after it comes to be used to thick victuals, it should have now and then, by way of drink, between the times of feeding, water in which a piece of upper crust of bread has been boiled, mixed with an equal quantity of new milk, when it can be had; or when this cannot be had, of boiled milk, sweetened with a very little sugar.

When the child comes to be about five or six months old, if the milk victuals be apt to grow sour upon its stomach, it will be right to use weak broth, either of chicken, veal, or mutton, or beef tea, as it is called, instead of milk, in its food, or at least it may be fed with this once or twice a-day. A little almond soap dissolved in the milk, in the manner before directed, will for the most part serve to correct this acidity*.

* I have frequently seen delicate children much benefited by taking, two or three times a-day, a small

About the age of seven months, if the child is cool, and not inclined to be fat, you may begin to give it at noon, once in two or three days, a very little bit of the white of the wing of a boiled chicken, minced very small, and mixed up into a kind of pap, with some of the broth that the chicken was boiled in, and a good deal of crumb of bread. But when it is at any time inclined to be feverish, it must have nothing of this kind.

At this age, too, you may begin to give it a little plain light bread pudding, now and then, for dinner.

About the same age, or rather before,

cup of the clear gravy of beef or mutton, with a little salt in it. This is obtained by saving the gravy that flows from a joint of meat when cut, setting it aside till cool, skimming the fat carefully off, and warming it at the time of giving it, by immersing the cup containing it in another filled with boiling water. Chocolate, or hartshorn jelly dissolved, very often agree well with children. *Ed.*

that is, as soon as the child can hold any thing in its hand, the nurse should every morning give it a piece of the upper crust of a loaf, cut in the shape, and about the size, of a large Savoy biscuit, one end of it dipped in its food, or a little milk, and put into its mouth, and the other to be held in its hand. The child will lie and divert itself with this, gnaw and swallow it by degrees, which will not only help to nourish it, but bring a greater quantity of saliva into the mouth, whereby the gums will be softened, and at the same time, by the gentle and repeated friction, the cutting of the teeth will be greatly promoted. For this end likewise, it will be proper to rub the child's gums frequently with a little honey, or currant-jelly.

The milk victuals should be made fresh twice a-day, that is, morning and evening, in winter; and three times in summer, especially in hot weather; and the milk must never be boiled with the pap,

but by itself, and added to the pap every time the child is fed; otherwise it will curdle, and grow sour on the child's stomach. It can hardly be necessary to mention, that when new milk is made use of, it must not be boiled at all*.

As to the times of feeding infants. While they are very young, there can be no regular times fixed; but the few following general rules may be of service. During the first few weeks that the child sucks, when it is not brought up by hand from the birth, if the mother has a good deal of milk, the infant will require very little feeding; and that chiefly in the night, in case it should be wakeful; that the mother's rest may not be broke by suckling it. But when it comes to be weaned, it must

* Attention to frequently making the victuals fresh is of the utmost importance. Many children attempted to be brought up by hand, perish from neglecting so to do. *Ed.*

be fed chiefly in the day-time, and put into the habit of sleeping during the night as soon as possible. At first, it should be fed frequently, and only a little at a time; for cramming can never be of service, but hurtful. I wish nurses would observe this more than they commonly do, and make it a general rule, never to force victuals down a child's throat when it refuses them. I have very often observed nurses guilty of this error, and told them the absurdity of it, sometimes to little purpose. But still it is a circumstance very well worth minding; otherwise both the appetite and digestion of the child may in time be much hurt, by the stomach's being repeatedly overcharged.

After a child has fasted for a good while, or has had a long sleep, it is right to offer it food; and if it is hungry, there is no sort of question but it will take it; the only thing to be remembered in this case, is not to give it too much. If it

refuses to feed, by no means urge it, but amuse and give it exercise, till the appetite returns.

If the infant is not suckled at all, it must be used from the birth to feed chiefly in the day, so that its sleep may not be disturbed in the night.

The following method will greatly contribute towards a child's resting in the night; and though it may appear strange at first to persons who never heard of it before, yet as I have seen it practised with success, I can therefore recommend it. And that is, for the nurse, the last thing she does before she goes to bed, about ten or eleven o'clock, to take up the child, even if it is asleep, open it before the fire, turn it dry, as the nurses term it, and feed it. The opening it before the fire, &c. rouses a child sufficiently out of its sleep to make it receive nourishment; but at the same time disturbs its rest so little, that it frequently does not open its eyes during the

whole time it is a feeding. I have seen, oftener than once, a child taken up in a sound sleep, eat a hearty mess of victuals, and afterwards break wind two or three times, then put into bed again, without opening its eyes. The mouth was opened readily enough whenever the boat was put to its lips, till the appetite was satisfied, and no longer. I fancy most children might be soon brought to this by not feeding them from six or seven o'clock in the evening, till the above-mentioned time; and the method here advised is attended with this great advantage, that if they are fed about this time, they seldom want any thing till about five, six, or sometimes seven o'clock in the morning.

As to clothing. They should have nothing tight about them, and as few pins as possible should be used. They ought to be kept rather warm, especially in cold weather, for the first three or four months; because, till they arrive at that age, they easily catch cold, which either makes them

feverish, or throws them into convulsions, or the watery-gripes.

On this account, too, nurses ought to be very careful to keep the infants dry ; for by soaking long in wet clothes, they are very apt to catch cold ; and besides, it is very weakening and unwholesome in every respect.

For this reason, also, whenever the child is turned dry, the cloths which are put to it should be very well dried and aired. I am afraid this circumstance is not always sufficiently attended to, though it is certainly a very material one ; as every body knows the pernicious effects of putting on damp linen, or lying in ill-aired sheets.

These directions ought to be still more carefully attended to, whenever the child happens to be loose in its body ; in which case the clouts, as soon as they are taken off, ought to be put away at a distance from the child ; or, if the stools are very

foetid, quite out of the room; as being not only offensive, but unwholesome to the infant.

But though I would by all means advise the keeping of infants as dry as possible through the day, yet I think it better not to open them in the night, if it can be avoided, for fear of giving them cold, and disturbing their rest. In case of a purging, it becomes necessary to open them, in order to turn them dry, in the night, as well as the day; but then there ought to be a fire kept in the room all night.

If the observation holds good, that very few children belonging to people of fortune die in their infancy, I imagine it must be owing to their having more convenient nurseries, and greater care taken of them in the above-mentioned respects; the extraordinary encouragement given to the nurses, making it their interest to give the children diligent attendance.

The keeping of infants warm, so as to

preserve them from catching cold during the few first months, is of so much consequence with regard to their future health and thriving, that the greatest care should be taken in this point.

I come next to consider the article of sleep.

Every body knows, that the younger children are, provided they are well, the more they are inclined to sleep. The infant having lain so long dormant in its mother's womb, it requires a good while, after it is born, for the habit to wear off; and, in general, the more it sleeps at first the better, if it is but a right sleep, and not the inward fits before described. But as, in order to prevent these, it ought to be dandled and patted, to make it break wind always after sucking or feeding; so this exercise ought to be continued longer at a time, and more frequently repeated, to rouse the child by degrees, out of this

sleepy habit, especially after you begin to use it to thick victuals.

Some infants are more wakeful in the night than in the day, which is hurtful to themselves, and irksome to those about them; and therefore they ought to be broke of it as soon as possible. The safest and most natural way of attaining this end is, by keeping them awake as much as you can throughout the day, and feeding them pretty plentifully about ten or eleven at night. As to opiates, in this case, I reckon them very pernicious; though I am afraid some careless nurses use too much freedom with them, by giving them to children in the day as well as the night, in order to keep them quiet, and prevent their disturbing them in their business.

I believe it may be taken for granted, that children who are used to a cradle in the day, are the more subject to be wakeful in the night; which is one reason why I

would prefer the bed to the cradle for infants. The rocking of the cradle, together with the nurse's drowsy song, disposes them indeed to sleep; but then they sometimes get into such a habit, that it is with great difficulty they can be made to sleep without those aids. Besides, as most children, when they are well, can be lulled to sleep almost at any time by the motion of the cradle and singing, some nurses are apt to take advantage of this, and studying their own ease more than the health of the infant, they lay it down to sleep immediately after feeding, instead of diverting and giving it exercise as much as possible in the day, both to help to digest its food, and to make it rest the better at night. For when I said, the more an infant sleeps the better, provided it is but a right sleep, I meant only during the first few weeks, till it gathers strength to bear a little proper exercise. Add to all this, I do not think they are laid so warm and comfortable, nor so much at their ease, in a cradle, as in a bed; and the rocking of the former is apt to gather a good deal of

wind, which in cold weather must sometimes be hurtful to the infant.

If you intend not to make use of the cradle, the child ought not to be jolted on the knee or lap during the month, which is frequently practised by nurses who attend lying-in women, when their young charge happens to be at any time restless.

This naturally leads me to the subject of exercise, which is the next thing I shall consider in the nursing of children.

Infants, however thriving they may be, for the first few months after they are born, have not strength to use any exercise themselves, except that of crying, when they are hungry or in pain, and kicking and pulling up their feet when they are griped; both which must be looked upon rather as symptoms of distress, than salutary exercises. Upon their nurses, therefore, they must depend, at first, for proper exercise; and next to suckling or feeding them, and

keeping them dry and clean, as has already been directed, there is nothing so conducive to their thriving as this.

The first exercise I shall mention proper for infants, is dandling, which is certainly of service to divert them, and keep them awake; but then it should be done very gently for a good while at first, and never with a jerk. Neither should they be hoisted up high in the air between the hands, as some people heedlessly do; for they begin very early to be susceptible of fear, much sooner than persons not accustomed to them would imagine. It is true, they may be brought to bear pretty hearty shaking, swinging, and even jolting, by degrees; and all this is of service, when they have strength to undergo it; nay, when the child bears it well, we reckon it a good sign that it is thriving, and has been well nursed; but it should be done very gradually, and not attempted too soon. I have seen an infant almost thrown into fits, from a sudden swing given to it

by one not used to young children. And how often do we see them start violently, and fall a crying, if there happens to be any sharp sudden noise made near them, in consequence of the weakness and sensibility of their nerves?

But the most useful exercise for very young infants, is rubbing with the hand; which cannot be too often repeated, nor continued too long at a time. They should be well rubbed all over, before the fire, twice a day at least, that is, morning and evening, when they are dressed and undressed; and the rubbing should be repeated from the loins downwards, every time they are turned dry, unless they have a purging, when it might fatigue them too much to have it done so often. There is nothing that infants in general seem more delighted with than this exercise, and it were to be wished, that the nurses would indulge them more in it. It will frequently make them quiet when nothing else will, and it is not only very pleasing to them,

but conduces greatly to make them thrive, and to prevent their catching cold, by promoting a free circulation, and perspiration likewise; Providence having kindly connected the agreeable sensation and the benefit.

Another good preservative against their catching cold, is, for the nurse, every morning when she dresses the child, having first of all rubbed it, to wash its back, loins, groins, and between its thighs, as also its limbs all over, with cold water, and afterwards to dry them carefully. The head and behind the ears, the neck, arms, and hands, should be washed in the same manner, and dried. If she observes that the skin seems any where to be chafed, after dabbling the part very well with cold water, and drying it gently with a fine cloth, let her apply some common powder to it, by means of a soft puff. But if much galled, from the heat and sharpness of the urine, which will sometimes happen about

the time of teething, especially to fat children, she must take some fuller's earth, dissolved in a sufficient quantity of hot water; let it stand till it is cold, and rub it gently upon the parts galled, once or twice a day*. Should this not be sufficient, she may make use of powdered ceruss, sprinkled upon the part two or three times a day. If the skin comes to be cracked, or chopt, the complaint falls under the denomination of the *intertrigo*, which see in its proper place, pages 122, -3, &c.

In most infants, sooner or later, there is a discharge from behind the ears, which at first oozes out in the form of sweat, or of a very thin lymph, and afterwards increases in quantity, becomes of a thicker consistence, and sometimes very acrid, so as to gall the neighbouring parts, and be very troublesome, especially at the time of teething.

* One part of spirits of wine mixed with two of pure water, is the best remedy in slight excoriations. *Ed.*

When this discharge is moderate, it should rather be encouraged than checked; and it will be sufficient for the nurse, every morning, to wash and clean the part well with cold water, and afterwards to rub it pretty hard with a dry cloth. But if the discharge is too plentiful, a bit of singed linen rag, such as the nurses commonly use for this purpose, will for the most part be sufficient to restrain it. If it is not, and, the complaint still getting ground, the parts begin to be ulcerated, it must then be considered as a bad *intertrigo*, and treated accordingly. See pages 122, -3, &c.

These are the most material rules that occur to me to be observed in dry-nursing: and it is obvious, that most of them are equally applicable to the management of children upon the breast.

A SHORT
GENERAL ACCOUNT
OF THE
DISPENSARY
FOR THE
RELIEF OF THE INFANT POOR.

I HAVE added a short general account of the Dispensary for the Infant Poor, to give an opportunity of introducing several complaints incident to children, which were either not at all, or not fully treated of, in the body of the work. But as that charity has been at a stand for some time on account of my bad state of health, which put it out of my power to attend it, I shall not trouble the public with a particular detail of the institution, contenting myself with explaining the nature and usefulness of it,

which, perhaps, may some time or other induce some other person or persons to take it up. But I should be very ungrateful, if I did not return my most sincere thanks to the worthy encouragers of that charity, and especially to Lord Winchelsea, who accepted the Presidentship in the most gracious and polite manner, and very generously directed fifty pounds to be paid, annually, towards the support of it, while it subsisted.

Almost all the children brought to the Dispensary, have been subject, more or less, to the hectic fever, described page 104, &c., which alarmed the parents, and made them apply for relief. Though this very fever does more havoc amongst children, after they are turned of six or eight months, than almost all the other diseases put together, and is the source of many other complaints, as was before remarked, yet very few authors, who have wrote on puerile diseases, have taken the least notice of it, and none that I know has written expressly upon it. Indeed Sir William For-

dyce, in his Appendix on the Hectic Fever, annexed to his New Inquiry into the Causes, Symptoms, and Cure of Putrid and Inflammatory Fevers, page 207, has strongly hinted at the frequency of it amongst children in and about London; but he has not particularly described it; and his method of cure, by repeated bleedings, is chiefly applicable to adults, or to children that are grown up, not to infants. This fever, when neglected, either terminates fatally, as was before explained, or occasions some of the worst complaints to which children are liable; such as the *scrophula*, rickets, weakness of constitution, and obstructions of various kinds; which, for the most part, might be easily prevented, if the disease was taken in time, and treated in a proper manner, as before directed. *Vid.* pages 104-5, &c. And here I cannot help observing, that if there accrued no other advantage to the public from this institution, than what must naturally arise from pointing out this fever, discovering the proper method of treating it,

and making it thus known; besides the great number of lives already saved by it; this circumstance alone, one would think, should recommend it to the favour and patronage of persons of all ranks. Amongst those who have recovered of this hectic fever, I have had a few, who, when first brought to the Dispensary, were so emaciated, that they seemed dying of a *marasmus*, with the true *facies Hippocratica*, and scarce had the appearance of human creatures, who yet have recovered past all expectation; for which reason I have admitted all of them that were brought. For, as I can always take care not to give them any thing that may be prejudicial, and as a few such have recovered, I therefore chose to give them all a chance. But, after the Dispensary became so generally known, I had the satisfaction to find that those very desperate cases did not so often occur, in consequence of their being brought sooner for relief.

This fever, as was before observed, after having continued for some time, is fre-

quently attended with a swelling of the belly, which generally subsides as the fever goes off, unless it has been of long standing, or adhesions have been formed in the abdominal *viscera*, which I suspect are more frequent than is commonly imagined, from the numbers which I have seen amongst the children whom I have opened; and these adhesions, I doubt, are not to be cured. However, as it is impossible to be certain of their existing in the living subject, it is always right to suppose the case curable, and consequently to endeavour at it, by the method before mentioned. One very natural reflexion, from what has been just now advanced, I must beg leave to mention here, which is, that as this swelling of the belly, when attended with these adhesions, I suspect to be incurable; so I hope, whoever shall think proper to try the above method, will not be discouraged if it sometimes fails; which I can assure him, from repeated experience, will not often be the case, unless the complaint has been of long standing. The best criterion that I

can point out for judging whether these adhesions have really taken place in the living subject, is to inquire, as narrowly as possible, whether the child has been frequently subject to fevers, especially of the inflammatory kind, where the bowels were affected; or if at any time he has had any fall or hurt affecting the same parts. The following ointment, taken from Dr. Sydenham, I have sometimes found of service in these swellings of children.

R_x Fol. absinth. vulg.
Centaur. min.
Marrub. alb.
Chamædr.
Chamæpit.
Scord.
Calaminth. vulg.
Parthneii,
Saxifrag. pratens.
Hyperic.
Virg. aur.
Serpilli,
Menthæ,
Salviæ,
Rutæ,

Card. bened.

Puleg.

Abrotan.

Chamomel,

Tanaset.

Lilior. conval.

(omnium rec. collectorum et incisorum) āā M. i.

℞ Axungiae porcin. lib. iv.

Sevi ovini,

Vini clareti, āā lib. ij.

Macerentur in olla fictili, super cineres calidos per horas xvi. deinde ebullient ad humiditatis consumptionem, ut fiat unguentum.

With this ointment the whole belly is to be well rubbed, night and morning, for a month or six weeks, as also the arm-pits.

During the autumn, diarrhœas are frequent amongst children, and, in the winter and spring, coughs. The diarrhœa has already been treated of in the former part of this book. As to the cough; if the child is very feverish, the tongue white, as in an inflammatory fever, and the cough dry and husky, as it is called, I begin the cure with

bleeding, either with the lancet, or leeches, according to the child's age, and other obvious circumstances; and after that give a gentle puke, if the phlegm is troublesome and the body open; but if he is costive, a cooling purge; and these evacuations are repeated as occasion requires. As to pectorals, when the child is not feverish, I commonly order the following mixture, which generally agrees, and has a good effect:

R_x Ol. olivar. opt. ℥i.

Lixiv. tart. vel sapon. gutt. xx.

Aq. pur. ℥v.

Sacchar. alb. q. s. ad gratum saporem.

Of this mixture the child is to take from a pap-spoonful, to one or two table spoonfuls, according to the age, five or six times a day, when the stomach is most empty, and the cough most troublesome.

But if the child is very feverish, I prefer this other, as being of a cooling febrifuge nature, besides its balsamic quality:

R_x Succ. limon. saturat. ʒvi.
Sperm. cet. V. O. S. ʒj.
Aq. pur. ʒv.
Vin. antimon. gutt. lx.
Syr. balsam. ʒss.

M.

This is directed to be given in a sufficient quantity, once in three or four hours, or oftener, if the fever and cough are very bad. After the fever is abated, if the cough continues violent, I recommend a blister between the shoulders, to be kept running for some time, which is often of great service. As to the whooping-cough, that has already been treated of in its proper place*.

The remedies for rashes of different kinds, and likewise for scall'd-heads and the *inter-trigo*, of which there used to be great

* I have in general found a plaster of Burgundy pitch a preferable application. It produces a sufficient discharge, and has no tendency to occasion strangury, as the cantharides is very apt to do in the irritable habit peculiar to infancy. *Ed.*

numbers brought for relief, have been mentioned before, when treating on that subject.

A great many male infants have been brought to the Dispensary with the *hernia scroti*, and also several of both sexes with the *exomphalos*, or navel rupture. The first, in very young children, for the most part, readily yields to the following treatment. If the child is of a costive habit, an emollient clyster is requisite, consisting of three or four ounces of thin water-gruel, a table-spoonful or two of sallad-oil, and the same quantity of brown sugar, which must be repeated occasionally. At the same time, a gentle laxative should be given from day to day, just sufficient to open the body moderately, and thereby prevent the straining during the time of going to stool, which, from the child's being costive, pushed down the intestine. On the other hand, if the child is of a lax habit of body, and especially if it is purged, the indication of cure is to remove the *stimulus* attending, or

sometimes occasioning the looseness, and thereby prevent the straining in this case also. Wherefore, when the abdominal *viscera* are foul, which is often the case, and is easily known by the stools smelling very offensive, if the child is turned of six months, I commonly begin with giving a quarter, or half a grain of calomel, according to the age, made up into a little pill, with a grain of *philonium*, at bed-time, and a few grains of rhubarb and the *testæ ostreorum* next morning; and these are repeated occasionally, till the stools become natural. On the intermediate days I give the *testæ ostreorum* alone, or mixed with a small quantity of *magnesia*, to carry off the purging by degrees. In both cases, I direct the groins and *scrotum* to be well dabbled with cold pump-water, or lime-water when it can conveniently be had, night and morning, the rupture being first reduced, if it was down. By this simple method I have cured a great number of infants (many of whom were born with ruptures) in a few months, and some in a few weeks. But if

the disease is stubborn, and the child a little grown up, for example a year or two old, or upwards, I recommend the elastic steel truss to be used, which, if skilfully made, answers the purpose very well, without hurting, and should be worn till the cure is perfectly completed, and the part has gathered sufficient strength. The *exomphalos* is to be cured in the same manner as the other *herniæ*; only, instead of dabbling the part with cold water night and morning, as was recommended for the other, a thick bolster of linen cloth, well soaked in brandy, must be kept applied to the navel, by means of a swathe, not bound too tight, and moistened twice a day. For this, likewise, there is a bandage made by the trussmakers, which is of great service. It will be right for the parents, as the child grows up, to caution him from time to time, against jumping, wrestling, or lifting heavy weights.

The small-pox and measles were excepted

from this charity, as being not only infectious diseases, but, when they are in any degree dangerous, requiring daily attendance at home, as was before mentioned, page 127. The hooping-cough is likewise infectious among children, for which reason such as had it were not suffered to be brought to the Dispensary: but as it seldom requires daily attendance at home, as the other two diseases just now mentioned for the most part do, it was not excepted; but upon the parents or nurses, who applied for their relief, giving an exact account of the age, habit of body, and other concomitant circumstances, necessary to be known, attending the disease, they were supplied with proper medicines and directions, whereby great numbers of children have been relieved and cured, as was mentioned before, when treating of that complaint.

These, together with convulsions of different kinds, complaints arising from teething, and others in consequence of the small-pox and measles, worms, the rickets, and

scrophula, all which are treated of in their proper places; these, I say, are the principal diseases which have occurred amongst the children brought to the Dispensary, or relieved by that charity; and the most effectual means of treating them that I have been able to discover. But, in conducting the physical department of the Dispensary, I did not confine myself to the therapeutic, or curative part of physic only; I likewise extended my care to the prophylactic branch, or that which concerns the prevention of diseases, constantly endeavouring to hinder their being so frequent, or so violent, when they happen. Thus the hectic fever, for example, which I mentioned as being so destructive to children, and the frequent source of so many other complaints, is most commonly owing to improper diet, as was before taken notice of; wherefore to prevent this disease as much as possible, or to render it less frequent, I have always inquired into the diet of the children that were brought to the Dispensary, and given particular directions

about it, not only while they were ill, but after they were recovered. It is hardly to be believed, but the fact is very certain, that many mothers here, amongst the lower sort of people, give flesh meat to their children while they are suckled, and fish, when they can come at it; nay, some give them porter, and stronger liquors, under the notion of heartening them. As soon as they are weaned, they live on the same food as their parents do, as many of the mothers and nurses have told me; that is to say, on beef, mutton, pork, bacon, and the like; for even the poorer people here think themselves starved without that diet. They are particularly fond of cramming them with fat, from a mistaken notion, that it must be light of digestion, because it weighs light in the scale; whereas, on the contrary, to most stomachs, there are few things so hard to be digested as fat. But this false opinion, concerning the nourishing quality of fat, is carried still further, and that food rendered more prejudicial, I might almost say poisonous, being sometimes

given in the hectic fever, to recover the child's flesh, after having been much emaciated. I was once told by a woman, who brought a child of this sort to the Dispensary, that she had before carried it to a physician of no small note, since dead, who assured her, that its cawl was decayed, and in order to repair the waste, he advised her to feed it with the freshest sheep suet boiled in new milk. I asked how it agreed with the child, and she answered, 'Very badly ;' which I readily believed.

It is true, there is a great deal in habit with regard to eating, as well as other things, and it is no small matter that will hurt some children, who are born of young, healthy, vigorous parents, and are inured to hardships of various kinds from the birth ; but even these children, at that age, would thrive much better on a lighter diet, especially considering that the coarsest pieces commonly fall to their share, I mean the lower sort of people. I am of opinion, the less animal food of any kind that is given to

a child till it has done teething, that is, till it is past two or three years old, the better; and even after that, if it is hot at nights, or at any time inclined to be feverish, all flesh meat is improper. I therefore forbid the use of it entirely under such circumstances, and the parents are soon made sensible of the advantage of a vegetable diet, which, in such a place as London, where so great a variety is to be had, can never be looked on as a hardship.

Another thing I always mention to them, as well deserving their attention, which is, to expose infants to damps as little as they possibly can. It is certain, that many of them have it not in their power to observe this rule so strictly as they would choose; but still there are numbers that can, and do, after being apprised of its great utility. Some persons, very probably, will object to this, as breeding up poor children, who must work for a livelihood, and be exposed to the inclemency of the weather, too tenderly; but I should think it soon enough

to begin to harden them after they have done teething: if it is set about sooner, I doubt not a few will die of the experiment. Indeed, at whatever time it is commenced, it should be done by degrees, and managed with as great discretion as the circumstances and situation of the parents will admit of; since every body knows, that nothing is more prejudicial to health, even in the strongest adults, than wearing clothes that are wet or damp. How then is it possible that it should agree with tender infants? Day-labourers, as they are called, seldom live to be old, which, perhaps, is more owing to the damps they are exposed to in rainy weather, and wearing wet clothes, occasioning bad fevers, the rheumatism, and other obstinate complaints, than to their strength being exhausted, or worn out with fatigue.

Many poor children are likewise hurt by being crowded together in small close apartments, which is not so easily remedied; but in this case I always advise them to keep

the windows open in the day-time, while the weather is hot, and the doors of the bed-chambers and closets during the night. I also object strongly to their living in stable-yards, the air of which is particularly unwholesome to children, as was before mentioned.

Cleanliness amongst the parents, nurses, and children, I encourage and commend, both on account of its decency and its salutary effects; and whenever any of them has come dirty to the Dispensary (which several used to do at first), I have constantly re-proved them for it; in consequence of which it has very seldom lately happened that any one came who was not clean and decently dressed.

As persons in the lower stations of life have a more free intercourse and communication with one another than those of a higher rank, and make their children a more frequent topic of conversation, for want of other subjects, and being also less

liable to dissipation, it is natural to imagine, that by means of this charity the above-mentioned instructions are now become generally known and observed by the Industrious Poor in and about London.

This is the *only* charity, as far as I know, that has ever been instituted *solely* for the relief of children. The design of it being to administer advice and medicines *gratis* to the children of the Industrious Poor, from the birth till the age of ten or twelve years; and its salutary effects cannot be more evidently demonstrated, than from the great number of patients relieved by it*.

* During a period of twelve years and nine months, *i. e.* from its first institution, in April 1769, till December 1781, when, from want of health, I was no longer able to attend it, the number of infant patients relieved by this charity amounted to near thirty-five thousand, as appeared by the Dispensary Books.

* * By the same Books it likewise appeared, that during the last five or six years of the Dispensary's being kept open, the number of children annually relieved amounted to four thousand four hundred, and upwards.

The Dispensary for the Infant Poor may justly be considered as a nursery for labourers, tradesmen, soldiers, and sailors; and, by means of this charity, not only a great many very useful lives are annually saved to the public, but the children of the Industrious Poor, who are the objects of it, will grow up a more thriving, vigorous, hardy, and useful race, by having their health restored at this critical age, when from sickness they are apt to fall into the *rickets*, *scrophula*, and other *chronical diseases*, which stint their growth, often render them deformed, and almost always *valetudinary*; so that instead of growing up useful members of the community, they become a mortifying burden both to themselves and the Public.

Another advantage attending this charitable institution is, its being confined to children only, whereby their complaints are more closely attended to, and considered; for, when sick children are admitted promiscuously with adults, the former never

have so much attention paid to them, as the latter. The great resort of children to this, in preference to any of the other charities, is an evident proof of the truth of this observation. Besides, at this Dispensary a particular account is kept of all the children's cases, together with the method of treating them, which is not done at any of the other charities.

A further circumstance in recommendation of this charity, in which it differs from all others, I cannot help mentioning, which is, that it receives children without any letters of admission, provided the parents are really indigent, the case dangerous, and requiring speedy relief.

To conclude this subject, as far as relates to the utility of the charity, considering the extraordinary resort of children to the Dispensary, many of whom are in a desperate way when they are first brought, and the few patients that die in proportion to the whole, as appears both from the quarterly

and annual accounts at different times published: By means of this charity, for some years past, there has annually been saved a great number of very useful lives, which must be of the greatest consequence to the public on all important emergencies. It has likewise been remarked by many of its friends, that no charitable institution was ever established, whereby so much good has been done, or so many lives saved at so small an expense, as by this very charity. And here I cannot help remarking, that, though this charity has been generally approved of, and confessed to be the best calculated for promoting population, and therefore should be considered as a national object of singular importance, yet, unfortunately, it met with so little encouragement, that it all along lay a burden on the original institutor, as many of the principal guardians and subscribers to the Dispensary can testify.

To finish this short account, I cannot help adding, that this being the first cha-

ritable institution of the kind, it may justly claim the merit of having given rise to all the other charitable Dispensaries in the kingdom *.

* A perusal of this plain but interesting account of the Dispensary for the Relief of the Infant Poor, will probably impress the minds of many readers, as it has done, that of the Editor, with surprise and regret, that an institution of such evident public utility should have been discontinued, for want of the very moderate pecuniary aid requisite for its support. Among no people, either in ancient or modern times, was there ever so much money set apart for the relief of the poor and the distressed, as in England: and at no former period were charitable institutions more numerous in this country, than at present. Whatever may be the political effects of these charities, it is impossible to cavil at the motives of those who support them. Distress is always an object of compassion. But whether that pecuniary assistance to which the natural decay of friendless old age has the most indisputed claim, should be equally extended to those premature infirmities which originate in intemperance: or, that the money which would be well bestowed in the relief of suffering virtue, is with the same propriety expended in affording an asylum to the voluntary profligate, may perhaps be questioned. The utility

of administering medical relief to the children of persons in the inferior ranks of society, admits of no such doubts. When the children of the poor are afflicted with sickness, to which those who live in the close unventilated habitations of great towns are peculiarly liable, natural affection, which knows no distinction of ranks, renders the mother anxious to obtain medical assistance. The expense of such as lies within their reach quickly exhausts their slender means; while the small quantity of medicine that can be consumed by an infant, is not sufficient to induce the practitioner, who has no other means of being remunerated for his time and trouble, to pay the requisite attention to his patient. The complaints of children are not in general of such a nature as to be exasperated by being brought into the air under the care of their parents. They may in general be alleviated by a small quantity of appropriate medicine, and their recurrence may frequently be prevented by suggesting some rules concerning diet and general treatment, to which I have observed that young mothers especially, are commonly attentive, and willing to put in practice. These circumstances render children peculiarly fit objects of Dispensary relief. And it will hardly be denied that this, or any other plan which enables parents to rear their children at home, is preferable to the best system of education in a public institution, by which they are necessarily separated from each other. That the labouring class of people in the metropolis are sensible of the benefits of such an institution, and

ready to avail themselves of the best medical advice they can obtain for their offspring, is abundantly proved by the numbers who applied to Dr. Armstrong's Dispensary when it became generally known.—For several years past, I have dedicated a part of the morning to the purpose of giving gratuitous advice to the children of poor persons. Even in this narrow sphere of observation, I have seen enough to convince me that such assistance is thankfully received, and often productive of beneficial consequences.—Should any well-disposed persons be influenced by these remarks, to re-establish a Dispensary for the exclusive purpose of relieving the children of the poor, my humble services shall not be wanting to further their benevolent intentions. *Ed.*

THE END.

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